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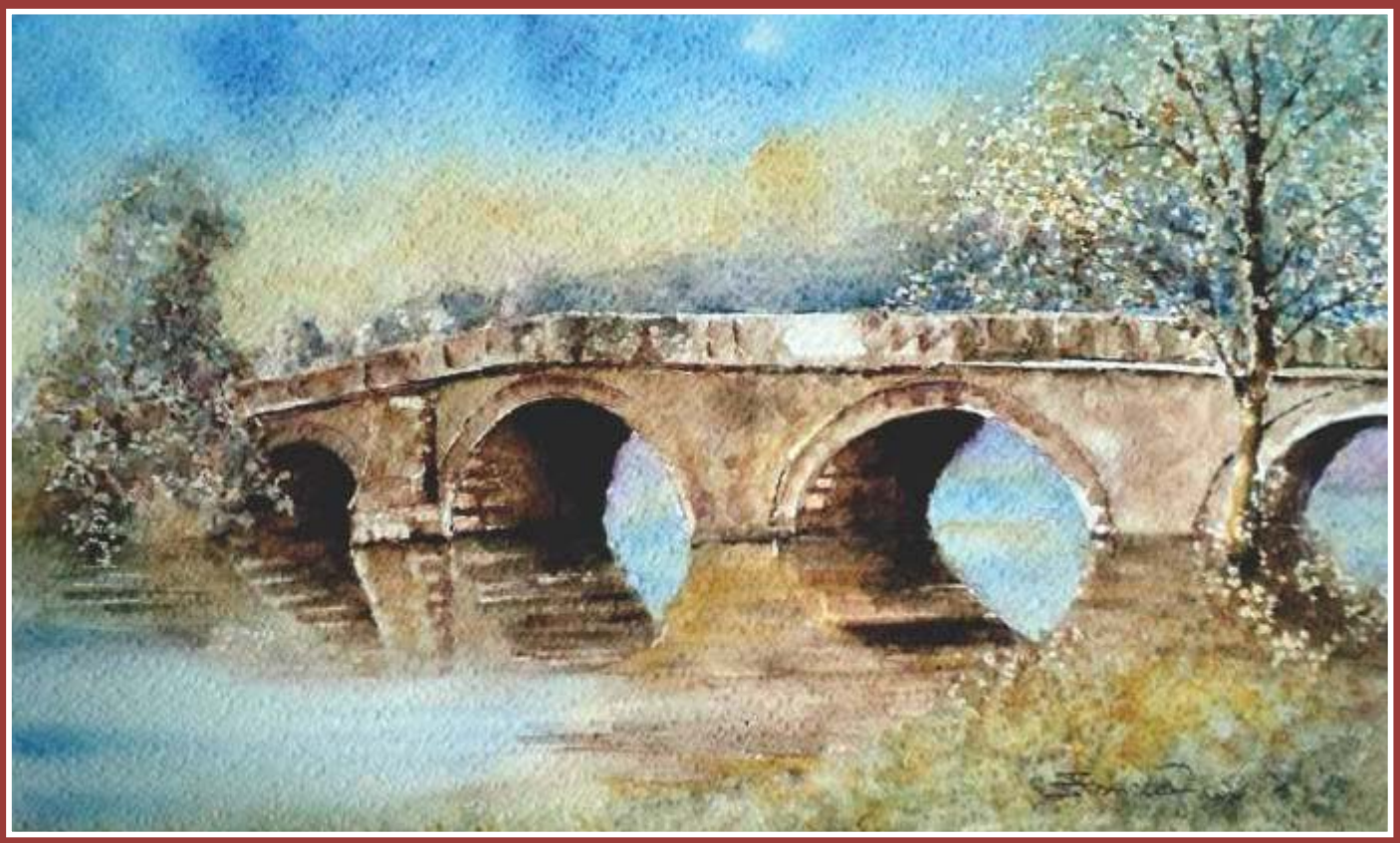

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RIJEČ UREDNIKA

Lijepo je bilo čitati i slušati o uspješnosti VII internacionalnog Simpozijuma iz opće stomatologije. Ponosni smo što nam je Simpozijum otvorila Predsjednica FDI Dr Tin Chun Wong, što smo slušali novosti iz stomatologije od pozvanih predavača i naših kolega čije sažetke objavljujemo u ovom broju.

Dr Tin Chun Wong je dodijelila priznanje od strane FDI-a Prof. dr. Maidi Ganibegović za uspješan rad u Naučnom komitetu FDI-a.

Hvala časopisima Graciji, Valetudo, Oslobođenju, FTV, TV Hajat I drugima koji su u danima trajanja Simpozijuma učestvovali u promociji važnosti oralnog zdravlja. A mi idemo dalje sa organizacijom VIII Internacionalnog Simpozijuma iz opće stomatologije koji će se održati koncem marta 2015. godine. Više o tome čitajte u ovom 45. broju našeg indeksiranog časopisa Bilten STOMATOLOGIA BiH, koji kontinuirano izlazi već 16 godina. Imamo razloga biti zadovoljni što smo članovi UDRUŽENJA STOMATOLOGA F BOSNE I HERCEGOVINE i što zajednički družeći se provodimo kontinuiranu edukaciju već 18 godina!

Urednik
Prof. dr sc. Maida Ganibegović-Selimović

Predsjednik FDI Dr Tin Chun Wong
Predsjednik USFBiH Prof. dr sc. Maida Ganibegović

WORD OF EDITOR

It was nice to read about the success of VII International Symposium of general dentistry. We are proud about that Symposium was opened by FDI President Dr Tin Chun Wong, and about listening news in dentistry from invited speakers and our colleagues whose abstracts published in this issue.
Dr Tin Chun Wong was awarded recognition from FDI to Prof. dr. Maida Ganibegović for the successful operation of the Scientific Committee of the FDI.
Thanks magazines Gracia, Valetudo, Oslobođenje, FTV, TV Hayat and others who were promoting the importance of oral health, in days of Symposium.
And we are going on with the organization VIII International Symposium of general dentistry to be held on the end of March 2015. More about this read in this 45th issue of our indexed the journal
Bilten STOMATOLOGIA BiH, which has been published continuously for 16 years.
We have reason to be satisfied beeing members of Dental Association of F BOSNIA AND HERZEGOVINA, and common socializing conduct continuing education for 18 years long!

Editor in chief
Prof. dr sc. Maida Ganibegović-Selimović

Sadržaj/Contents

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FDI President: draft address

VII INTERNATIONAL SYMPOSIUM IN GENERAL DENTISTRY, FACULTY OF DENTISTRY SARAJEVO

28 March 2014

Thank you very much for inviting me to address this important event in the international calendar. I very much appreciate the invitation from the Bosnia & Herzegovina Dental Association to attend this event and brush up my knowledge of the oral health strategies and priorities in this part of the world. Such events promote a transfer of information between countries encountering similar oral health issues and the potential to share solutions to problems. They also allow regions to develop a common voice in the international arena, especially within FDI World Dental Federation.

Bosnia and Herzegovina is a long-standing member of FDI, today through its national dental association and dental chambers – and before that, through the associations and chambers of the former Yugoslavia. Visiting you is therefore visiting valued old friends and colleagues.

For those who are not aware of FDI and its work, FDI World Dental Federation unites under a single umbrella some 200 national dental associations and other specialist groups in 140 countries on all continents. It can with justice claim to be the voice of over 1 million dentists worldwide. That is a very powerful voice to have.

It is a voice that we use frequently in our dialogues on oral health with the World Health Organization and members of the United Nations family, with which FDI is in official relations. From this privileged position, FDI can make known the views of the world's dentists known to decision makers and officials who will play a key role in how public health policy and oral health policy evolves and develops over the next few years.

FDI's vision is to 'lead the world to optimal oral health'. This vision integrates World Oral Health Day as a major tool in raising global awareness – and today, I would like to extend a word of thanks for Bosnia and Herzegovina being among the more than 100 countries worldwide that joined with us to mark World Oral Health Day just one week ago on 20 March under the theme 'Celebrating Healthy Smiles'.

A healthy smile is possible only when there is no pain or discomfort. A smile gives pleasure to its owner and to those who see it. A healthy smile is a smile without any dental or oral diseases. A smile is a most effective tool of communication: its proud owner possesses a powerful instrument of self-respect and self-esteem.

From small beginnings when World Oral Health Day was launched during the FDI Annual World Dental Congress in Dubai in 2007, it has now become a massive event with a global impact and, as such, a significant contributor towards the FDI vision of 'Leading the World to Optimal Oral Health'.

From the information made available to me, World Oral Health Day celebrations here included free dental check-ups, in-store promotion of the special day together with distribution of oral health packs, and well a publicity in pharmacies. It seems to me that these were excellent methods for getting the 'celebrating healthy smiles' across to members of the public and, on behalf of FDI, I would like to congratulate and thank your dental community for the exceptional work.

Turning to today's event, I am very honoured to address you in this wonderful faculty of dentistry in Sarajevo, reflecting the scientific nature of the symposium. Science provides not only an exception technical tool for improving performance: it also provides the background studies and evidence-based research we need when we approach governments and decision makers with our proposals on ways and means of improving oral health.

Just recently, for example, the World Health Organization opened a public consultation[1] [http://www.who.int/nutrition/sugars_public_consultation/en/] on a draft guideline on the consumption of free sugars with a focus on the prevention and control of oral diseases and tooth decay as well as on obesity.

The draft makes reference to research in oral health and the link between sugar consumption and caries. This gives the dental community another opportunity for raising awareness on the common risk factor approach and the importance of prevention.

WHO's current recommendation is that sugars should make up less than 10% of total energy intake per day. The new draft guideline further suggests that a reduction to below 5% of total energy intake per day would have additional benefits.

Sugar is used extensively by the food processing industry and the soft drinks industry; it is also a key export of small and vulnerable island economies. Industry lobbyists will argue that any mass reduction in sugar intake will have a serious economic; in the face of this, scientific arguments must be solid and evidence-based. The dental community has an exceptional research-base and network, including august institutions such as this one in Sarajevo.

I also note that your scientific programme includes a lecture on the eco-friendly dental office. This is also something of great importance today, when the health sector, just like all other sectors of the economy is being called upon to reduce its 'carbon footprint', that is, all the elements of its work that have an impact on the environment.

FDI has also been focusing on dentistry and the green economy due to signing of the Minamata Convention on Mercury, which I attended, in Japan in October last year. Due to the use of mercury in dental amalgam, FDI, as the world voice of the dental community, and partners such as the International Association for Dental Research,together with WHO, provided valuable advice to delegates during over four years of negotiations.

The aim was to protect dentists' right to continue to use dental amalgam for a certain period after the entry into force of the Convention, called a 'phase-down'. The other option, advocated by some governments, was a phase-out, that is to say a total ban.

FDI strongly feels that the phase-down was the best deal that could emerge from the international negotiations. In return, the dental community has made undertakings in the field of prevention and control

[1] http://www.who.int/nutrition/sugars_public_consultation/en/

of oral diseases as well as in the field of furthering research in the field of dental materials. For its part, FDI is in the process of preparing guidelines for its national dental associations and other members on implementing the treaty, bearing in mind that the Convention watchdog will monitor progress in the phase-down of dental amalgam within five years of the Convention's ratification.

I would like to take more time to draw your attention to the international work of FDI because we are making progress in many key areas; however, time is limited and you are all keen to listen to today's other speakers – and visit your first lectures later today.

In closing today, I would like to thank you once again for this opportunity to speak – and for your meticulous planning of this event in Sarajevo. I look forward to seeing some of you here today during the 2014 FDI Annual Dental congress, taking place in New Delhi from 11 to 14 September.






IZVOD IZ ZAPISNIKA

Na sjednici Predsjedništva USFBiH održanoj 14.10.2015.godine: odlučenoje:
1. VIII Simpozij iz opće stomatologije održati će se u Aqareumalu u Fojnici od 27.-29. Marta 2015. Godine.
2. Iznos kotizacije uplaćen do Nove godine za članove udruženja je 80 KM, za autore radova 50 KM, za studente 20 KM. Poslije Nove godine cijena se povećeva za sve kategotije učesnika za 50 %.

USFBiH

Milaim Sejdini[1],Albena Reshitaj[1], Nazmie Ibishi[2], Sokol Krasniqi[2], Xhina Mulo[2]

PREVALENCE OF HYPODONTIA, CHARACTERISTICS AND ASSOCIATION WITH DIFFERENT

DENTAL ANOMALIES OF THE GROUP OF AGE 12-16 YEARS OLD IN KOSOVO

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Summary:

Hypodontia, is one of the most common developmental anomalies in humans that can cause masticator dysfunction, speaking impact, create aesthetic problems, psychological implications and need for orthodontic treatment and in some cases even prosthesis treatment.

Aim: To determine the prevalence of hypodontia, characteristics, distribution and association with other dental anomalies.

Methodology: In this study were included 3306 primary school students in Kosovo. Clinical examinations were conducted using periapical and panoramic radiographs, study models and intraoral photographs of all patients with hypodontia .

Results:

The prevalence of hypodontia was 2.3% from selected samples. There were no statistically significant differences between gender using Chi- square test with SPSS 15 (0099, p = 0.753). Dental anomalies are associated with hypodontia, crown shape anomalies, supraposition , rotation, inclination, cross bite and diastema.

Conclusion: The importance of prevalence findings of hypodontia , association with other dental anomalies would be helpful in the early determination of this anomaly and prevention of subsequent implications as outcome.

Key words: The prevalence of hypodontia, school children, dental anomalies.

Introduction

Congenital absence of teeth or Hypodontia is one of the most common abnormalities in tooth development in human beings . The prevalence of hypodontia varies from 2.63% to 11.2%, depending on the race (1.2,3,4)

In persons of European ancestry, the most common missing teeth are the wisdom teeth (25-35%), the upper lateral incisors (2%) the lower second premolars (3%), or the upper second premolar, with a 4:1 female to male ratio. The prevalence of missing primary teeth is found at 0.1-0.9%, with a 1:1 male to female ratio. Excluding the third molars, missing permanent dentition accounts for 3.5-6.5%. Similar trends of missing teeth can be seen in approximately 3-10% of orthodontic patients.(5.6)

This dental anomaly was found with a greater prevalence in Western population with values between 4.4% and 8%.

Regarding gender, this anomaly appears more often to women than to men (7,8,9). Some other studies report not any significant statistical difference between genders (13.14.15).

The prevalence of the absence of permanent teeth, excluding third molar ranges from 1.6% to 9.6% depending on the population studied.

There are many theories on the etiology of hypodoncion. This anomaly has a multi-factorial etiology including: inheritance - genetic factors, and environmental factors (10). However, there is still a theory capable of explaining the whole phenomenon of congenital absence of dental structures. Previous studies have shown that hipodoncion has a higher prevalence in the relatives of affected individuals than in the general population (11) which touches also both denticions; the primary and permanent denticionin (12).

Prevalence of Hipodoncion been studied is reported by many other countries. In Kosovo there is still not such a study on the prevalence of this anomaly; as well as demographic and other abnor-

malities that bond characteristics referring to certain age group.

Hipodoncion may be an indication for orthodontic treatment depending on the weight and consequences that it may create.

Lack of teeth can be classified as: hipodoncion, oligodoncion or anodoncion. (The term hipodoncion is used to describe the lack of one to six teeths (excluding third molar), oligodontia absence of more than six teeth (excluding the third molar), and anodontia represents a complete lack of tooth (16).

Many methods of classification have been employed in the literature.(17)

Some researchers have found the congenital absence of teeth to occur either as an isolated family form or as an intermittent form. The inherited form could be either autosomaldominant, autosomalrecessive, or an X-linked trait .(18)

Others have defined the congenital absence of teeth according to the number of missing Teeth.(17,19)

Hypodontia refers to the condition where there is an absence of fewer than six teeth .The term Oligodontia is usually used to describe a larger number of missing teeth (six or more). Anodontia is the complete absence of teeth.

Many other researchers have used similar methods of classifying the congenital absence of teeth (20) In general, they identify three categories of hypodontia, excluding third molars, as follows: Mild with 1 or 2 missing teeth. Moderate with 3 – 5 missing teeth.

Severe with 6 or more missing teeth.

Hypodontia is also classified as either isolated hypodontia or syndromic hypodontia.

Isolated hypodontia refers to those cases without syndromes .(21) Thus, hypodontia can occur either as part of a syndrome or as a non-syndromic, familial form; in the latter it occurs as an isolated trait, affects variable numbers of teeth and appears either sporadically or as an inherited condition within a family pedigree .(22)

Other dental abnormalities have been reported in patients with hipodoncion such as conical forms (23), taurodontizm (24), defects in developing (15,25) and Transposition of lateral with caninin (26,22).

Second premolars and upper lateral incisors are the most frequently missing teeth. Females are more often affected than males and studies have indicated an association between anomalies in tooth number and form, and other dental anomalies .(28)

These dental anomalies can create differences in maxillary and mandibular dental arch lengths which may result in malocclusion and complicate treatment planning. Orthodontic management of hypodontia patients requires multidisciplinary care, either to close the spaces where there are missing teeth or to open up these spaces and then replace the missing teeth to achieve aesthetic and functional occlusion(29).

THE AIM OF THE STUDY

This study was performed to determine the prevalence of hypodontia of permanent teeth in Kosova population age 12-years and whether such prevalence is associated with the type of dental clinic, patient gender or the type of malocclusion.

2. Materials and Methods

The age of the participants included in this study are between 12-16 years old. All of them were visited in the respective primary schools in Kosovo . A total of 3306 subjects were examined using panoramic radiograph, periapical radiograph for the incisor region, study models and intraoral photographs of all patients with hypodontia.

In cases where it was difficult to distinguish between extraction and hypodontia, the previous dental history was examined.

Hypodontia was registered after verifying the absence of teeth in panoramic radiography, excluding advance a history of tooth loss from trauma, caries, periodontal diseases or orthodontic extractions. All teeth presented in the mouth and jaw were recorded except third molar which are not included in our

study. Hypodontia is diagnosed by describing the relationship of hipodoncion with other dental abnormalities verified.

In our study are not used hypodontia cases related to syndromes or systematic diseases.

Descriptive statistics were performed for this study. Variables collected data are analyzed to present frequencies, gender, type of teeth, as well as the connection of hypodontia and other dental anomalies.

The difference in the prevalence of hypodontia between gender was tested with Hi square test using SPSS 15

2.1. Ethical approval

This study was approved by Ethical Commities at Faculty of Medicine-University Clinical Center of Kosova.

3. Results

In this cross sectional study 3606 middle school childrens 12-16 years old were evaluated from all regions of country,in period time between january 2012 until june 2012.

Table.1.Frequency of participants according to gender

Gender		Frequency	Percent	Cumulative Percent
Valid	F	1566	47.4	47.4
	M	1740	52.6	100
	Total	3306	100	

Table 1. shows the results of frequency of participants according to gender . From the total cases participated in the study 3606; 1740 of them or 52.6% were male and 1566 of them or 47.4% were female gender.The prevalence of hypodontia was 2.3% of all cases.

Table.2 Prevalence of hypodontia

Hypodontia prevalence		Frequency	Percent	Cumulative Percent
Valid	No	3229	97.7	97.7
	Yes	77	2.3	100
	Total	3306	100	

Table2. shows the prevalence of hypodontia in 2,3% of all cases of 12-16 year old childrens , or 77 of them were find to had hypodontia.

Table 3. Hypodontia presence at participants according to their gender

Hypodontia p<0.05 Chi-test=4.345	Gender			
	F		M	
	Count	Column N %	Count	Column N %
No	1520	97.10%	1709	98.20%
Yes	46	2.90%	31	1.80%
Total	1566	100.00%	1740	100.00%

Table 3.shows that females that participated in this research were 1566, from these 2.9% had hypodontia and from the whole number of male participants 1.8% had hypodontia.
Difference between genders using Chi- test was significant at level of p<0.05 .

Table.4.Frequency of anomalies in hypodontia group

Other anomalies		Hypodontia	
		Count	Column N %
Crossbite	No	65	84.42
	Yes	12	15.58
	Total	77	100.00
Crown shape anomalies	No	69	89.61
	Yes	8	10.39
	Total	77	100.00
Supraposition	No	74	96.10
	Yes	3	3.90
	Total	77	100.00
Rotation	No	42	54.55
	Yes	35	45.45
	Total	77	100.00
Inclination	No	49	63.64
	Yes	28	36.36
	Total	77	100.00
Diastema	No	63	81.82
	Yes	14	18.18
	Total	77	100

Table 4.shows the frequency of anomalies at hypodontia group of patients crossbite was present in 15,58% of cases ,crown shape in 10,39% of cases ,45,45% had rotation of different teeth and 18,18% of them had diastema.

Table 5. Hypodontia presence according to the tooth

Tooth		Frequency	Percent	Cumulative Percent
Valid	12	26	17.8	17.8
	13	1	0.7	18.5
	14	10	6.8	25.3
	15	6	4.1	29.5
	22	30	20.5	50
	23	4	2.7	52.7
	24	11	7.5	60.3
	25	5	3.4	63.7
	31	3	2.1	65.8
	32	1	0.7	66.4
	34	7	4.8	71.2
	35	12	8.2	79.5
	41	4	2.7	82.2
	42	3	2.1	84.2
	44	10	6.8	91.1
	45	12	8.2	99.3
	46	1	0.7	100
Total		146	100	

Table 5. shows the highest percentage of hypodontia founded in the upper left second incisor in a 20.5% of cases, after that the upper right second incisor in 17.8% of cases. The lowest percentage 0.7% or only one tooth missing was found in the 13, 32 and 46.

Table.6 Hypodontia presence according to the jaws

Jaws		Frequency	Percent	Cumulative Percent
Valid	Maxilla	46	59.7	59.7
	Mandible	21	27.3	87
	Both Jaws	10	13	100
	Total	77	100	

Table 6.shows that from the whole number of patients with hypodontia 59.7% were localized in Maxilla, 27.3% were localized in Mandible and 13% in both jaws.

Table.7 Hypodontia presence according to the jaws and gender

		Jaws with Hypodontia		
		Maxilla	Mandible	Both jaws
		Count	Count	Count
Gender p>o.o5 Chi-test=0.022	F	26	13	7
	M	20	8	3
	Total	46	21	10

Table 7. shows the presence of hypodontia according to jaws and gender and we found no significant difference for the presence of hypodontia according to the gender and the jaws for P>0.05 , (Chi-test=0.022)

Table.8 The number of missing teeth

Missing teeth		Frequency	Percent	Cumulative Percent
Valid	1	32	41.6	41.6
	2	33	42.9	84.4
	3	4	5.2	89.6
	4	4	5.2	94.8
	5	4	5.2	100
	Total	77	100	

Table 8.shows that the highest percentage of teeth missing in patients was with 42.9% of patients with two teeth missing, 41.6% of patients with only one tooth missing.

5.2% or 4 patients were found with 4 teeth missing and 4 participants with 5 teeth missing.

Tab.9 Mean, Standard Deviation, Median

	Gender		
	F	M	Total
Hypodontia	46	31	77
Mean±SD	1.84±1.09	1.96±1.04	1.89±1.07
Median	2	2	2
Minimum	1	1	1
Maximum	5	5	5
Rank	1--5	1--5	1—5

The whole number of patients with hypodontia was 77. Even the mediana was 2 in male and female patients, the mean in female patients was 1.84±1.09 and for male patients was 1.96±1.04.

The mean for all patients examined with hypodontia was 1.89±1.07.

4. Discussion

Prevalence of hypodontia has been reported from many countries. Knowing prevalence of hypodontia and connection with other anomalies, helps classify the need for further treatments; whether orthodontic or prosthetics . According to a study conducted in Kosovo schools with 3606 pupils general sample, males 1740 (52.6%) and 1566 females (47.4%), prevalence of hypodontia (excluding third molar) is 2.3%. According to numerous studies, the prevalence is reported to vary between 2.2% and 10.1%. The prevalence in our study approaches the frequency observed in the Mexican population (2.7%) (Silva Meza R (2003) (17), and much lower than the prevalence derived from the study of orthodontic patients in Slovenia (11.3%) (Fekonja A (2005) (18). This value is is below the average between 1.6% and 9.6% that is reported for a normal population (19).

In our study females pose a higher prevalence of hypodontia(female patients that participated in this research were 1566, from these patients 2.9% had hypodontia and from the whole number of Male patients 1.8% had hypodontia) but no significant difference between the sexes, which is consistent with most studies (18,20,21). At a glance, this difference was not small, suggesting that females might have more predominance tendency on the prevalence of hypodontia. In comparison between the two jaws hypodontia in some studies reported that it is more pronounced in the maksilla than in mandibulla, while our results are in line of studies that report the opposite, Kirzio ˇ Glue Zo (2005) (22) that the absence of teeth is expressed in mandibull than in the maksilla. Very few studies have assessed the hypodontia about malocluzions in orthodontics. This makes us have attention during orthodontic treatment of patients with hypodontia.

The result of no gender difference was in agreement with the results of several previous reports (30, 31, 32, 36–37), although other studies report female predominance with respect to the prevalence of hypodontia [38, 33, 34,35).

Teeth lack more often be lateral (15%) of the upper jaw followed by second paramolars lower jaw and upper (10%), which is consistent with several studies. Variations exist in the literature regarding the description of the most frequently missing tooth, excluding third molar. Thongudomporn and Freer, (1998); Backman and Wahlin, 2001; Polder et al., 2004; Mattheeuws et al., 2004; Endo et al ., 2006) (25), other studies indicate that current permanent lateral teeth in the upper jaw is affected. (Müller et al., 1970; Ciamponi and Frassei, 1999; Meza, 2003; Fekonja, 2005) (25).

The presence of other dental anomalies associated with hipodoncion reported by many studies as well as our study shows connection, causes and etiology of hypodontia.

The orthodontic treatment strategies for prevalence and diverse patterns of hypodontia are needed to prevent oral health impairment. In replacing congenitally missing teeth also may consider the bone volume, which is related to the facial esthetics including smile (36) The multidisciplinary approaches for the care of the hypodontia patients are also important to consider the impact of hypodontia on the quality of life (37), and the establishment of the “Hypodontia Clinic” in the University Hospital is recommended for the total care of hypodontia patients, who have most common complaints of missing teeth, spacing in the dental arches, and poor appearance (38).

5. Conclusions

The importance of getting the prevalence and linkage with other dental abnormalities lies in determining early this anomaly and prevention of subsequent implications as its causes.

This study was conducted in all country so that the data and findings from our study were compared with data from other countries at the national level, the issue of prevalence hypodontia anomalies in children aged between 12-16 years old.

It is also necessary to make studies to ascertain the etiology of dental anomalies associated with hypodontia. A detailed description of dental anomalies can be achieved by studying these anomalies redirect the cases of hypodontia in the family. So by those methods it could be studied beter the correlation between genotype and phenotype.

References

1. Sisman Y , Uysal T , Gelgor IE . Hypodontia. Does the prevalence and distribution pattern differ in orthodontic patients? *Eur J Dent*. 2007;1(3):167–173.

2. Polder BJ , Van't Hof MA , Van der Linden FP , Kuijpers-Jagtman AM . A meta-analysis of the prevalence of dental agenesis of permanent teeth. *Community Dent Oral Epidemiol*. 2004;32(3):217–226.

3. Altug-Atac AT , Erdem D . Prevalence and distribution of dental anomalies in orthodontic patients. *Am J Orthod Dentofacial Orthop*. 2007;131(4):510–514.

4. Chung CJ , Han JH , Kim KH . The pattern and prevalence of hypodontia in Koreans. *Oral Dis*. 2008;(7):620–625.

5. Medina AC (2012). "Radiographic study of prevalence and distribution of hypodontia in a pediatric orthodontic population in Venezuela.". *Pediatr Dent.* **34** (2): 113–116..

6. Vahid-Dastjerdi E, Borzabadi-Farahani A, Mahdian M, Amini N (2010). "Non-syndromic hypodontia in an Iranian orthodontic population.". *J Oral Sci.* **52** (3): 455–461.

7.Aasheim B, Ögaard B (1993). Hypodontia in 9-year-old Norwegians related to need of orthodontic treatment. *Scand J Dent Res* 101:257-260.

8.Ahmad W, Brancolini V, ul Faiyaz MF, Lam H, ul Haque S, Haider M et al. (1998). A locus for autosomal recessive hypodontia with associated dental anomalies maps to chromosome 16q12.1.*Am J Hum Genet* 62:987-991.

9.Al-Khateeb T, Salako NO (1997). The incidence of taurodontism in permanent molars in Saudi Arabian dental patients. *Ped Dent J* 7:69-72.

10. Burgersdijk R, Tan HL (1978). Oral symptoms of the Wolf syndrome. ASDC J Dent Child 45:488-489. Chi DD, Hing AV, Helms C, Steinbrueck T, Mishra SK, Donis-Keller H (1992). Two chromosome 7dinucleotide repeat polymorphisms at gene loci epidermal growth factor receptor (EGFR) andprology2(I)collagen (COL1A2). *Hum Mol Genet* .1:135.

11. Chosack A, Eidelman E, Cohen T (1975). Hypodontia: A polygenic trait, a family study among IsraeliJews. *J Dent Res* .54:16-19.

12. Garn SM, Lewis AB (1970). The gradient and the pattern of crown-size reduction in simple hypodontia. *Angle Orthod* . 40:51-58.

13. Lavelle C L B, Ashton E H, Flinn R M 1970 Cusp pattern, tooth size and third molar agenesis in the human mandibular dentition. *Archives of Oral Biology* .15: 227–237

14. Grahnén H 1956 Hypodontia in the permanent dentition. *Odontologisk Revy.* Supplement 7: 1–100

15. Haavikko K 1971 Hypodontia of permanent teeth. An orthopantomographic study. *Suomen Hammaslaakariseuran Toimituksia*. 67: 219–225

16. Arte S 2001 Phenotypic and genotypic features of familial hypodontia. Thesis, University of Helsinki

17. Brook AH (1974). Dental anomalies of number, form and size: their prevalence in British schoolchildren. Journal of the International Association of Dentistry for Children 5:37-53.

18. Mostowska A, Kobielak A, Biedziak B, Trzeciak WH (2003). Novel mutation in the paired box sequence of PAX9 gene in a sporadic form of oligodontia. European Journal of Oral Sciences 111:272-276.

19. Burzynski NJ, Escobar VH (1983). Classification and genetics of numeric anomalies of dentition. Birth defects original article series 19:95-106.

Van der Weide YS, Prahl-Andersen B, Bosman F (1993). Tooth formation in patients with oligodontia. Angle Orthodontist 63:31-37.

Vastardis H (2000). The genetics of human tooth agenesis: new discoveries for understanding dental anomalies. American Journal of Orthodontics and Dentofacial Orthopedics 117:650.

20. Brook AH, Elcock C, al-Sharood MH, McKeown HF, Khalaf K, Smith RN (2002). Further studies of a model for the etiology of anomalies of tooth number and size in humans. Connective Tissue Research 43:289-295.

Hobkirk JA, Gill DS, Jones SP (2011). Hypodontia: A Team Approach to Management Oxford: WileyBlackwell.

21. Arte S, Nieminen P, Apajalahti S, Haavikko K, Thesleff I, Pirinen S (2001). Characteristics of incisorpremolar hypodontia in families. Journal of Dental Research 80:1445-1450.

22. Pemberton TJ, Das P, Patel PI (2005). Hypodontia: genetics and future perspectives. Brazilian Journal Of Oral Sciences 4:695-706.

Cobourne MT (2007). Familial human hypodontia--is it all in the genes? British Dental Journal

203:203-208

23. Townsend G, Rogers J, Richards L, Brown T 1995 Agenesis of permanent maxillary lateral incisors in South Australian twins. *Australian Dental Journal* .40: 186–192

24. Lai P Y, Seow W K 1989 A controlled study of the association of various dental anomalies with hypodontia of permanent teeth. *Pediatric Dentistry*. 11: 291–296

25. Symons A L, Stritzel F, Stamation J 1993 Anomalies associated with hypodontia of the permanent lateral incisor and second premolar. *Journal of Clinical Pediatric Dentistry* .17: 109–111

26. Peck S, Peck L, Kataja M 1998 Mandibular lateral incisor–canine transposition, concomitant dental anomalies, and genetic control. *Angle Orthodontist* .68: 455–4623

27. Shapira Y, Kuftinec M M 2001 Maxillary tooth transpositions: characteristic features and accompanying dental anomalies. *American Journal of Orthodontics and Dentofacial Orthopedics* .119: 127–134

28. Brook AH (1984). A unifying aetiological explanation for anomalies of human tooth number and size. Archives of Oral Biology 29:373-378.

Schalk-van der Weide Y, Steen WH, Bosman F (1992). Distribution of missing teeth and tooth morphology in patients with oligodontia. ASDC Journal of Dentistry for Children 59:133-140.

29. Jepson NJ, Nohl FS, Carter NE, Gillgrass TJ, Meechan JG, Hobson RS, et al. (2003). The

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PRIMJENA ANTIBIOTSKE TERAPIJE U DJEČIJOJ STOMATOLOGIJI

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Abstrakt

Antibiotici se u stomatološkoj praksi propisuju iz profilaktičkih i terapijskih razloga. Kako bi odabrao pravi antibiotik, dječiji stomatolog treba imati na umu nekoliko stvari: antibakterijski spektar, povoljna farmakokinetička svojstva, dobru podnošljivost, farmaceutski oblik lijeka.Primjena lijekova kod pedijatrijskih pacijenata je dodatno komplikovana potrebom prilagođavanja doziranja medikamenta njihovoj manjoj težini i veličini tijla. Doza i upute o tome kako će se on primjenjivati razlikovaće se od bolesnika do bolesnika, ovisno o dobi bolesnika, težini i nekim drugim razlozima.

Ključne riječi: *antibiotska terapija, doziranje, djeca, odontogene infekcije*

Uvod

Bakterijske infekcije su uobičajene u stomatološkoj kliničkoj praksi a rezultat toga je česta upotreba antibiotika propisanih za njihov tretman.Procjenjuje se da su odontogene infekcije razlog za izdavanje 10% od svih propisanih antibiotika. (1) Široka upotreba antibiotika od strane zdravstvenih radnika rezultirala je alarmantnim porastom prevalence bakterijskih infekcija rezistentnih na antibiotike. Nekoliko ranijih studija utvrdilo je da su djeca liječena antibiotikom sklonija kolonizaciji bakterijama koje su otporne na taj isti antibiotik. (2) Što je važnije, čini se da je neka vrsta rezistencije već razvijena za sve trenutno dostupne antibiotike. (3) Stomatolozi i njihove medicinske kolege mogu pomoći u rješavanju ovog rastućeg i potencijalno razornog problema propisujući antibiotike samo onda kada je to primjereno i nužno za rješavanje infekcije. (4)U dječijoj stomatologiji je administriranje lijekova dodatno zakomplikovano potrebom da se doza prilagodi dječijoj težini i veličini.

Postoji više indikacija za primjenu antibiotika u stomatologiji. Kliničari primjenjuju antibiotike kod djece prvenstveno za liječenje oralnih infekcija i sprječavanje bakteremije uzrokovane stomatološkim treatmanom.(5)

Da bi se izbjegla zloupotreba antibiotika, stomatolozi moraju poznavati indikacije i kontraindikacije za njihovo propisivanje, pravilan raspored doziranja, rizik od alergijskih i toksičnih nuspojava, superinfekcija i razvoja mikroorganizama otpornih na antibiotike.

Profesionalne organizacije i smjernice

Američka akademija za dječiju stomatologiju (AAPD), je izrazila zabrinutost zbog rastućeg trenda otpornosti na antibiotike i razvila specifične smjernice za kliničare. (6) U posljednjih nekoliko godina, tendencija je da se smanji opšta upotreba antibiotika za preventivne ili terapijske svrhe.

Tretman dentalnih infekcija

Pulpitis/ Apikalni periodontis

Ukoliko kod pacijenta postoje simptomi akutnog pulpitisa, potrebno je obezbjediti odgovarajuću stomatološki tretman koji podrazumjeva terapiju pulpe ili vadjenje zuba. Terapija antibioticima obično nije indicirana ako infektivni proces dosegne samo pulpu ili susjedna tkiva a bez znakova sistemske infekcije (na primjer, groznice ili otoka). (6-9)

Apikalni periodontitis/ lokalizovano intraoralno oticanje

Ovo su najčešći apscesi oralnog tkiva. Počinju u kosti na vrhu zuba, kao upalne lezije, koji napreduje do apscesa. Mogu ostati ograničeni na kost ali se često šire i zahvataju meka tkiva. Rezultat je oteklina koja je pretežno lokalizovana u usnoj šupljini. Hitno liječenje se sastoji primarno od otklanjanja iritanasa (bakterija, bakterijskih nusproizvoda, upalnih medijatora) iz kanala te uklanjanjem pritiska i gnoja incizijom i drenažom. Ako se zub ne može popraviti, vađenjem se postiže i uklanjanje iritanasa i drenaža.(7-9) Antibiotska terapija obično nije indicirana ukoliko ne postoje znakovi sistemske infekcije.

Akutni facijalni apsces i celulitis dentalnog porijekla

Celulitis je teža pojava od apscesa lokalizovanog u usnoj šupljini. Ekstraoralni apsces i reakcija na apsces ima tendenciju da se širi, i zahvata druga tki-

va i susjedne prostore. Rezultat toga je primjetno oticanje i izobličenje lica. Dijete sa odontogenom infekcijom praćenom akutnim otokom lica treba dobiti hitnu stomatološku pomoć.(9). U zavisnosti od kliničke slike i opšteg stanja djeteta, tretman se može sastojati od liječenja zuba uzročnika uz razmatranje pitanja uključivanja antibiotske terapije ili propisivanja antibiotika da se spriječi širenje infekcije, a zatim liječenje uključenih zuba.(7,9) Antibiotik izbora je penicillin, koji se uzima oralno i u propisanim dozama.(9) Intravenski, antibiotici se koriste samo kod pacijenata koji su hospitalizirani zbog ozbiljne infekcije. Iako moćno oruđe, antibiotici bez lokalnog tretmana zuba/zubi uzročnika, neće riješiti problem.

Tretman pedijatrijskih parodontalnih oboljenja

Antibiotici su u najboljem slučaju pomoćno sredstvo i nisu primarni oblik terapije kod pacijenata sa parodontopatijom. Primarni cilj i osnovna terapija kod ovih stanja je uklanjanje lokalnih iritanasa (10). Kod peridontalnih bolesti povezanih sa neutropenijom, kao sto je Papillon- Lefevre sindrom i adhezijom leukocita, imuni sistem djeteta ne može kontrolisati rast periodontalnih patogena pa je u tom slučaju tretman antibioticima potreban.(10)

Virusne bolesti

Stanja kao što su akutni primarni herpeticki gingivostomatitis ne bi trebala biti tretirani antibioticima ukoliko ne postoje jake indikacije da postoji i sekundarna bakterijska infekcija.(11).

Tretiranje oralnih povreda

Povrede oralne regije su povezane sa povećanim rizikom od bakterijske infekcije. Rizik od nastanka infekcije raste kod povreda tvrdog zubnog ili potpornog tkiva ukoliko je povezana sa otvorenom ranom kože ili mukozne membrane. Intraoralne laceracije kontaminirane bakterijama iz spoljne sredine, otvorene frakture i udruzene povrede imaju povećan rizik od nastanka infekcije i trebaju biti pokrivene antibioticima.(12)

Uzročnici odontogenih infekcija

Većina odontogenih infekcija (70%) sadrži mješavinu aerobnih i anaerobnih bakterija. Čiste aerobne infekcije se pojavljuju u manje od 5% slučajeva, a čiste anearobne infekcije se pojavljuju u 25 % slučajeva. Istražitelji se slažu da kod ranih odontogenih infekcija, preovladjuju aerobne gram pozitivne bakterije, alfa- hemolitičke streptokoke. Kako infekcija sazrijeva i postaje ozbiljnija, mikroflora postaje mješavina aeroba i anearoba. Kada odbrambene snage domaćina uspostave kontrolu nad infektivnim procesom, flora postaje predominantno anaerobna.

Zbog toga je izbor antibiotika uslovljen brojnim faktorima: stadijumom infekcije i sposobnošću pacijenta da uzme antibiotike (npr. opšte medicinsko stanje pacijenta ili postojanje alergije).

Prilagodjavanja doza kod pedijatrijskih pacijenata

Uopšteno, djeci se ne može dati ista doza lijeka kao odraslima. Glavni razlog je razlika u veličini tjelesne mase. Postoji nekoliko načina doziranja lijekova za dijete među kojima je najčešće Clarkovo pravilo:

Težina djeteta - kg	X doza za odrasle = dječija doza
___	
70 kg	

Clarkovo pravilo se može koristiti i da se izračuna doza za neuhranjenje i starije pacijente.

Principi antimikrobne terapije

Da bi ostvarili optimalan učinak, antibiotike treba propisivati čim prije, pri čemu se moraju uzeti u obzir optimalna doza i najučinkovitiji put od lijeka (peroralno, im. ili iv.) . Kod infekcija koje pokazuju tendenciju brzog širenja ili je ukupno stanje pacijenta loše potrebno je antibiotike ordinirati parenteralno. Kod lakših dentogenih infekcija antibiotike dajemo peroralno (sirupi, rastvori, kapi za manju djecu a kapsule i tablete za školsku djecu).U dječijoj stomatologiji administriranje lijekova je dodatno zakomplikovano potrebom da se doza prilagodi dječijoj težini i veličini. Doza i upustva kako ih koristiti će se razlikovati od pacijenta do pacijenta, ovisno od pacijentovih godina, težine i drugih okolnosti. Djeci mlađoj od 5 godina treba propisati sus-

penziju kod koje je ukus veoma važan. Percepcija ukusa smatra se najvažnijim faktorom koji potiče suradljivost djeteta u liječenju. Ukus suspenzije je čak važniji za postizanje dobre suradljivosti djeteta od broja dnevnih doza. (5,12) U početku, do jasnog smirivanja kliničkih znakova infekcije, obavezna je svakodnevna kontrola. Ako infekcija ne odgovara na prvobitno prepisani lijek, mora se uzeti kultura sa zaraženog mjesta. Najkraće vrijeme trajenje terapije trebalo bi ograničiti na 5 dana od tačke značajnog poboljšanja ili rješavanja simptoma. (12,13). Značaj završetka cijelog toka terapije se obavezno mora naglasiti pacijentu.

Glavna karakteristika stomatoloških stanja je to da se većina dentalnih infekcija može se uspješno liječiti uklanjanjem izvora infekcije. (14)

Tretman odontogenih infekcija

Antibiotici se mogu kategorisati po njihovom načinu djelovanja. Baktericidni antibiotici obično ubijaju mikoorganizme, dok bakteriostatski antibiotici usporavaju rast bakterija i zavisno od imunog sistema domaćina nastoje odstraniti mikroorganizme. Antibiotici sa baktericidnim djelovanjem koji se najčešće koriste u stomatologiji su Penicilini i cephalosporini. Bakteriostatici koji se uobičajeno koriste su makrolidi, tetraciklini i sulfonamidi.

Idealan antibiotik za liječenje zubnih infekcija bi bio **baktericidni** za gram pozitivne koke i većinu patogena mijesanih anaerobnih infekcija jer izaziva najmanje štetnih efekata i alergijskih reakcija i relativno je jeftin.

Ako ne postoje alergijske reakcije, Penicilin VK je najbolji izbor u liječenju odontogenih infekcija jer zadovoljava većinu kriterija. Ako pacijent u ranoj fazi odontogene infekcije ne reaguje na penicillin VK, postoji velika vjerovatnoća da je da je infekcija uzrokovana rezistentnim sojevima bakterija. U tom slučaju, pacijentu se propisuju antibiotici otporni na beta-laktamazu, obično klindamicin ili amoksicilin/klavulonska kiselina. Druga mogucnost je da se penicilinu priključi jos jedan lijek (npr. metronidazol) odnosno da se uz baktericidni uključi još i bakteriostatski antibiotik. Doze za pomenute lijekove se mogu naći u Tabeli 1.

Tabela 1. Antibiotici izbora za odontogene infecije.

Antibiotici	Uobičajene oralne doze Djeca
Penicillin VK	< 12 years: 25-50 mg/kg body weight in equally divided doses q6-8h for at least 7 days; (15-17) maximum dose: 3 g/24h
Amoxicillin	< 40 kg: 20-40 mg/kg/day in divided doses q8h > 40kg: 250-500 mg q8h or 875 mg q12h for at least 7 days; (15,18) max. dose: 2 g/24h
Amoxicillin/clavulanic acid	< 40 kg: 20-40 mg/kg/day in divided doses q8h > 40kg: 250-500 mg q8h or 875 mg q12h for at least 7 days; (15,16) max. dose; 2 g/24h
Cephalexin	25-50 mg/kg/day in divided doses q6h Severe infection: 50-100 mg/kg/day in divided doses q6h; max. dose: 3g/24h (15,16)
Clindamycin	08-25mg/kgin 3-4 equally divided doses (16,18)
Metronidazole	< 40 kg: 30/mg/kg/day in divided doses every 6 hours > 40 kg: 250 mg every 6-8 hours (15,18,) max. dose: 4g/24h

Sistemska antibiotska profilaksa

Većina stomatoloških zahvata uzrokuje bakterijemiju, a vjerovalo se da to može dovesti do nastanka infektivnog endokarditisa(IE). Međutim, iako postoji mogućnost da se mikroorganizmi prošire i zaraze tkiva nakon oralnog zahvata, ne postoje potkrijepljeni dokazi da se to zaista i dešava. Kao

posljedica toga postoji kontroverza kada i pod kojim uslovima treba primjeniti antibiotsku profilaksu. (19)

Američka asocijacija dječijih stomatologa (AAPD) podržana od strane Američke asocijacije za bolesti srca (AHA) je izdala smjernice o prevenciji infektivnog endokarditisa.(20) Srčana oboljenja povezana sa najvećim rizikom od nastanka endokarditisa za koja se preporučuje antibiotska profilaksa prije stomatoloških zahvata navedena su u Tabeli 2. Konsultacije sa pacijentovim liječnikom mogu biti neophodne da bi se utvrdila sumnja na rizik od nastanka infekcije izazvane bakterijemijom.

Tabela 2: Visokorizična srčana stanja za koja je preporučena IE profilaksa

- Vještačke srčane valvule
- Ranije preležani bakterijski endokarditis
- Kongenitalnesrčanebolesti (KSB)
- Netretirane cijanotične KSB, uključujuć i palijativne šantove i kanale
- Potpuno reparirani srčani defekti vještačkim materijalima ili uredjajima, bilo da su ugrađeni operacijom ili kateter intervencijom, tokomprvih 6 mjeseci nakon postupka.
- Reparirana (KSB) sa preostalim defektima na mjestu ili u blizini mjesta protetskog šava ili protetskog uredjaja (koji ihhibira endotelizaciju)
- Osobe sa transplantiranim srcem kod kojih se razvila srčana valvulopatija

Za profilaksu endokarditisa koji je povezan sa stomatološkim tretmanom, amoxicillin je antibiotik izbora. Clindamycin je alternativa kod pacijenata koji su alergični na peniciline. Lijek je bakteriostatik, mada se davanjem preporučenih doza postiže baktericidan učinak. Kod djece alergične na penicillin može se koristiti i posljednja generacija makrolida, clarithromycina i azithromycina. Cephalosporin i cefazolin su dodatne opcije kada je spektar izbora ograničen.

Tabela 3.Režim antibiotske profilakse za djecu

Dati jednu dozu 30 do 60 minuta prije procedure		
Situacija	**Antibiotik**	**Djeca**
Peroralno	Amoxicillin	50 mg/kg
Unemogućnosti uzimanja lijeka peroralno	Ampicillin ili Cefazolin ili ceftriaxone	50 mg/kg IM ili IV 50 mg/kg IM ili IV
Peroralno - kod alergije na peniciline ili ampicilin	Cephalexin or Clindamycin or Azithromycin ili Claritromycin	50 mg/kg 20 mg/kg 15 mg/kg
Kod alergija na penicilin ili ampicilin u nemogućnosti uzimanja lijeka peroralno	Cefazolin or ceftriaxone ili Clindamycin	50 mg/kg IM ili IV 20 mg/kg IM ili IV

Zaključak

Čini se da ne postoji usklađenost između profesionalnih smjernica i prakse propisivanja antibiotika u stomatologiji. Stomatolozi moraju biti savremeni u svom poznavanju farmakologije u stomatološkoj praksi, nastavti obrazovanje u cilju boljeg razumjevanja patogeneze dentalnih infekcija, uključujući poznavanje poproblema razvoja rezistencije na antibiotike, a takođe pratiti buduća ispitivanja koja će im omogućiti donošenje odluka utemeljenih na dokazima.

REFERENCE

1. Jaunay I Sambrook P, Goss A. Antibiotic prescribing practices by South Australian general dental practitioners. Aust Dent J 2000; 45(3):179-186.

2. Centers for Disease Control and Prevention. Methicillinresistant Sfaphyloccus aureus (NIfiSA) infections.'trvww.cdc.gov/mrsa/'. Accessed Dee. 8, 2011.

3. Pailasch TJ. Pharmacokinetic principles of antimicrobial therapy. Periodontol 2000 1996;10:5-11.

4. Musoke RN, Revathi G. Emergence of multidrug-resistant gram-negative organisms in a neonatal unit and the therapeutic implications. J TYop Pediatr 2000;46(2):86-91.

5. Poveda Roda R, Bagan JV, Sanchis Bielsa JM, Carbonell Pastor E. Antibiotic use in dental practice: a review. Med Oral Patol Oral Cir Bucal 2007;12(3):E186-E192.

6. AmericanAcademy of Pediatric Dentistry Council on Clinical Affairs. Guideline on use of antibiotic therapy for pediatric dental patients. Pediatr Dent 2010.2011;33(6 suppl):262-264.

7. Walton RE, Zerr M, Peterson L. Antibiotics in dentistry--a boon or bane? APUA Newsletter 1997;15:(1)

8. Johnson BS. Oral infection: Principles and practice of antibiotic therapy. Infect Dis Clin North Am 1999;134:851-70.

9. Maestre Vera JR. Treatment options in odontogenic infection. Med Oral Patol Oral Cir Bucal 2004;9(Suppl S):19-31

10. Delaney JE, Keels MA. Pediatric oral pathology: Soft tissue and peri¬odontal conditions. Pediatr Clin North Am 2000;47:1125-47.

11. American Academy of Pediatrics. Herpes simplex. In: Red Book: 2003 Report of the Committee on Infectious Diseases. 26th ed. Elk Grove Village, Ill: American Academy of Pediatrics; 2003:344-53.

12. Nakamura Y, Daya M. Use of appropriate antimicrobials in wound management. Emerg Med Clin North Am 2007;25(1)159-76.

13. Keenan JV, Farman AG, Fedorowicz Z, Newton JT. A Cochrane system review finds no evidence to support the use of antibiotics for pain relief in irreversible pulpitis. J Endod 2006;32(2):87-92.

14. Khan I! Muennig P, Behta M, Zivin JG. Global drug-resistance patterns and the management of latent tuberculosis infection in immigrants to the United States. N Engl J Med 2002;347(23):1850-1859.

15. Ml. Mosbys Dental Drug Reference, 10th edition. Jeske AH, editor. Elsevier/Mosby, St. Louis, Missouri; 2012.

16. Wynn RL, Meiller TF, Crossley HL. Drug information Handbook for Dentistry, 16th edition. Lexi-Comp, Hudson, Ohio; 2010.

17. Custer JW, Rau RE. The Harriet Lane Handbook, 18th edition. Mosby/ Elsevier, Philadelphia, PA: 2009.

18. Clinical Pharmacology. Gold Standard Inc/ Elsevier. Tampa, Fl. Available at: „http://www.clinicalpharmacology-ip.com“. Accessed September 17, 2012.

19. Bogle RG, Bajpai. Antibiotic Prophylaxis Against Infective Endocarditis: New Guidelines, New Controversy? Br J Cardiol 2008;15:279-80.

20. American Academy of Pediatric Dentistry (AAPD). Guideline on use of antibiotic therapy for patients at risk of infection: American Academy of Pediatric Dentistry (AAPD); 2007.

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THE USE OF ANTIBIOTICS THERAPY IN PEDIATRIC DENTISTRY

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Abstrakt

Antibiotics are prescribed in dental practice for prophylactic and therapeutic reasons. In order to chose the right antibiotics, the pediatric dentist should have several things in mind: antibacterial spectrum, favorable pharmacokinetic properties, good tolerability, pharmaceutical shape. The administration of drugs to pediatric patients is further complicated by the necessity to adjust the dosages of medicatious to accommodate their lower weight and body size. The dose and instructions on how to take them will vary from patient to patient, depending on the patients age, weight and other considerations.

Ključne riječi: ***antibiotic therapy, dosage, children, odontogenic infections***

Introduction

Bacterial infections are common in dental and oral clinical practice; as a result, antibiotic use prescribed for their treatment is also frequent.It has been estimated that odontogenic infections are the reason for issuing 10% of all antibiotic prescriptions.(1) Widespread use of antibiotics by the health care professionals has resulted in an alarming increase of the prevalence of the drug resistant bacterial infections. Researches made in several previous studies showed that children treated with an antibiotic were more likely to be colonized by the bacteria resistant to the same antibiotic. (2) What is more important, it appears that some type of resistance has been developed for all currently available antibiotics. (3)Dentists and their medical colleagues can help addressing this growing and potentially devastating problem by only prescribing antibiotics when appropriate and necessary to positively resolve an infection. (4)The administration of drugs to the pediatric patients is further complicated by the necessity to adjust the dosages of medications to accommodate their lower weight and body size.

There are several indications for the use of antibiotics in dentistry. Clinicians treat children with antibiotics primarily to treat oral infections and to prevent bacteremia caused by the dental treatment. (5)

To prevent misuse of antibiotics, dentists have to aware of the indications and contraindications

when prescribing them; the proper dosing schedule; and the risk of allergic and toxic adverse reactions, superinfections and the development of antibiotic-resistant organisms.

Professional organizations and guidelines.

The American Academy of Pediatric Dentistry (AAPD), is concerned with the upward trend in antibiotic resistance and has developed specific clinical guidelines for the practicians. (6)In the last several years, it has been a tendency to reduce general antibiotic use in preventive or therapeutic purposes.

Dental infection management

Pulpitis / apical periodontitis

If a patient presents evidence of acute pulpitis, the required dental management should be provided (pulp therapy or extraction). Antibiotic treatment is usually not indicated if the infectious process only reaches the pulp or the immediate adjacent tissues in the absence of signs of systemic infection (i.e., fever or facial swelling). (6-9)

Apical periodontitis / localized intraoral swelling

These are the most common abscesses in the oral tissues. They begin in the bone at the tooth apex as inflammatory lesions, which progress to becoming abscesses. These abscesses may be confined to the bone, but often spread to the overlying soft tissues. The resulting swelling is predominantly within the oral cavity. Emergency treatment consists primarily and most importantly from removing the irritant (bacteria, bacterial by-products, inflammatory mediators) from within the tooth and relieving the pressure and purulence by incision and drainage.If the tooth is not salvageable, extraction accomplishes both removal of irritants and drainage. (7-9). Antibiotic therapy is usually not indicated unless there are signs of systematic infections.

Acute facial absces and celullitis of dental origin

Cellulitis is a more severe manifestation of the localized abscess.Extraoral abscess and the reaction to the abscess tends to spread, and it affects other tissues and adjacent areas. The result is noticeable swelling and distortion of the facial features. A child presenting with a facial swelling secondary to a dental infection should receive immediate dental attention. (9) Depending on the clinical findings, the treatment may consist of treating the tooth / teeth in question with antibiotic coverage or prescribing antibiotics to contain the spread of infection and then treating the involved tooth / teeth. (7,9) The antibiotic of choice is penicillin, administered orally and with in effective dosages. (9) Intravenous antibiotics are seldom used except for a patient who is hospitalized with a serious infection. At best, antibiotics are supplemental; without local treatment, they will not resolve the problem.

Management of pediatric periodontal diseases

Antibiotics are, at best, an adjunctive and not a primary form of therapy in the patient with periodontal disease. Removal of local irritants is the primary objective. (10) In periodontal disorders associated with neutropenia, such as the Papillon-Lefevre syndrome and leukocyte adhesion deficiencies, the immune system of children is unable to control the growth of periodontal pathogens. Antibiotic treatment is therefore needed in such cases. (10)

Viral diseases

Conditions such as acute primary herpetic gingivostomatitis should not be treated with antibiotic therapy unless there is a strong evidence to indicate that a secondary bacterial infection exists. (11)

Oral wound management

The oral wounds are associated with increased risk of the bacterial contamination. The possibilities of infection increase when trauma to the hard dental or supporting tissues is in turn associated with open skin or mucosal membrane wounds. The intraoral lacerations that appear to have been contaminated by extrinsic bacteria, open fractures , and joint injuri have an increased risk of the infection and should be covered with antibiotics. (12)

Causes of odontogenic infections

The most odontogenic infections (70%) contain mixed aerobic and anaerobic bacteria. Pure aerobic infections have less than 5% incidence. Pure anaerobic infections have 25% incidence.The consensus by researchers is that in early odontogenic

infections, bacteria are aerobic with gram-positive, alpha-hemolytic streptococci (S. Viridens) predominating. As the infection matures and increases in severity the microbial flora becomes a mixture of aerobes and anaerobes. As the host defenses begin to control the infection process the flora becomes predominately anaerobic.

Thus, the choice of antibiotic is influenced by a number of factors: stage of the infection development and the ability of the patient to take the antibiotic-medical conditions or allergy.

Adjustment of dosages with pediatric patients

In general, the pediatric patients cannot be given adult dosages of a drug. The primary reason for this is the difference in body size. Several rules exist to compute the dosage of a drug for a child. The most common is Clark"s rule:

Childs weight - kg	X adult dose = childs dose
———————————	
70 kg	

Clark"s rule may also be used to calculate dosages for underweight, or elderly patients.

Principles of antimicrobial therapy

Antibiotics should be prescribed as soon as possible for optimal healing. Optimal dose and the most effective route of drug administration (oral vs im. vs iv.) must be considered. With infection that tends to a rapid expansion or when the overall condition of a patient is bad, antibiotics need to be prescribed parenterally. With minor dental infections oral antibiotics need be given orally (syrups, solutions, drops for smaller children and capsules and tablets for school children). The administration of drugs to the pediatric patients is further complicated by the necessity to adjust the dosages of medications to accommodate their lower weight and body size. The doses and instructions on how to take them will vary from patient to patient, depending on the patient's age, weight and other circumstances. For children under five there should be prescribed a suspension with a nice flavor, which is very important. Perception of the taste is the most important factor that encourages children's cooperation when treating them.The taste of the suspension is even more important for achieving good cooperation of a child than the number of daily doses. (5,9) The clinical effectiveness of the drug must be monitored. If the infection does not respond to the initially prescribed drug, a culture from the infected site must be taken. The minimal duration of drug therapy should be limited to 5 days past the point of substantial improvement or resolution of the symptoms. (9,13) The importance of completing a full course of antibiotic therapy must be emphasized to the patient.

A major distinction between medical and dental conditions is that the majority of dental infections can be treated successfully by removal ofthe source of the infection. (14)

Treatment of odontogenic infections

Antibiotics may be categorized by their attacking method. Bactericidal antibiotics usually kill microorganisms, while bacteriostatic antibiotics slow bacterial growth and depend on the host immune system to eliminate the microorganism. Common bactericidals used in dentistry are the penicillins and cephalosporins. Common bacteristatics are the macrolides, tetracyclines and sulfonamides.

The ideal antibiotic for treating dental infections would be bactericidal against gram positive cocci and the major pathogenes of mixed anaerobic infections. It would cause minimal adverse effects and allergic reactions and be relatively low in cost.

In the absence of an allergic reaction, penicillin VK is the drug of choice in treating dental infections as it fits most of these criteria. If a patient with an early stage odontogenic infection does not respond to penicillin VK, there is a strong probability of the presence of resistant bacteria. In these cases, beta-lactamase-stable antibiotics should be prescribed to the patient. These include either clindamycin or amoxicillin/clavulonic acid. Another alternative is to add second drug to the penicillin (e.g. metronidazole) that is, to include bacteriostatic with the bactercidal antibiotic. The doses for the above drugs may be found in **Table 1.**

Table 1. Antibiotics of choice for odontogenic infections.

Antibiotic	Usual oral dosage
	Children
Penicillin VK	< 12 years: 25-50 mg/kg body weight in equally divided doses q6-8h for at least 7 days; (15-17) maximum dose: 3 g/day
Amoxicillin	< 40 kg: 20-40 mg/kg/day in divided doses q8h > 40kg: 250-500 mg q8h or 875 mg q12h for at least 7 days; (15,18) maximum dose 2 g/day
Amoxicillin/clavulanic acid	< 40 kg: 20-40 mg/kg/day in divided doses q8h > 40kg: 250-500 mg q8h or 875 mg q12h for at least 7 days; (15,16) maximum dose 2 g/day
Cephalexin	25-50 mg/kg/day in divided doses q6h Severe infection: 50-100 mg/kg/day in divided doses q6h; maximum dose 3g/24h (15,16)
Clindamycin	08-25mg/kgin 3-4 equally divided doses (16,18)
Metronidazole	< 40 kg: 30/mg/kg/day in divided doses every 6 hours > 40 kg: 250 mg every 6-8 hours (15,18) maximum dose 4g/day

Systemic antibiotic prophylaxis

Most dental procedures cause bacteraemia and it was believed that this may have lead to BE. Although the potential exists for oral microorganisms to seed and infect the distant tissues after oral procedures, there is no substantiated evidence that this occurs. Consequently, the issue of when and for what conditions systemic prophylactic antibiotics are necessary is controversial. (19)

The American Academy of Pediatric Dentistry (AAPD) supported by the American Heart Associations (AHA) issued gudelines on prevention of infective endocarditis. (20) Cardiac conditions associated with the highest risk of adverse outcomes from endocarditis for wich prophylaxis prior to the dental procedures is recommended are included in the **Table 2.** Consulting patient's physician may be necessary to determine the susceptibility to bacteremia-induced infections.

Table 2: High risk cardiac conditions for which IE prohylaxis is recommended

- Prosthetic cardiac valve
- Previous bacterial endocarditis
- Congenital heart disease (CDH)
- Unrepaired cyanotic CHD , including palliative shunts and conduits
- Completely repaired congenital heart defects with prosthetic material or devices, whether placed by surgery or catheter intervention within the first6 months after the procedure
- Repaired CHD with residual defects at the site or adjacent to the site of a prosthetic patch or prosthetic device (which inhibit endothelialization)
- Cardiac transplatation recipients who develop cardiac valvulopathy

For the prophylaxis of endocarditis associated with the dental treatments, amoxicillin is the antibiotic of choice. Clindamycin is an alternative in the case of the patients who are allergic to penicillins. The drug is bacteriostatic, although bactericidal action is clinically achieved with the generally recommended dosage. The latest generation macrolides, clarithromycin, and azithromycin can also be used if a child is allergic to penicillin. Cephalosporin and cefazolin are additional options when a broader spectrum of action is required.

Table 3. Antibiotic prophylaxis regimen for children

Administer single dose 30 to 60 minutes before procedure		
Situation	**Agent**	**Children**
Oral	Amoxicillin	50 mg/kg
Unable to take oral medication	Ampicillin or Cefazolin or ceftriaxone	50 mg/kg IM or IV 50 mg/kg IM or IV
Alergic to penicillins or ampicillin-oral	Cephalexin or Clindamycin or Azithromycin or Claritromycin	50 mg/kg 20 mg/kg 15 mg/kg
Alergic to penicillin or ampicillin and unable to take oral medication	Cefazolin or ceftriaxone or Clindamycin	50 mg/kg IM or IV 20 mg/kg IM or IV

Conclusion

There is a lack of concordance between recommended professional guidelines and antibiotic prescribing practices of dentists. Dentists must be up-to-date in their knowledge of pharmacology, they need to continue their education in order of better understanding the pathogenesis of the dental infections, including knowledge of the problem of the antibiotic resistence and also to monitore future researches which enable them to make decisions based on evidence.

REFERENCE

1. Jaunay I Sambrook P, Goss A. Antibiotic prescribing practices by South Australian general dental practitioners. Aust Dent J 2000; 45(3):179-186.

2. Centers for Disease Control and Prevention. Methicillinresistant Sfaphyloccus aureus (NIfiSA) infections.'trvww.cdc.gov/mrsa/'. Accessed Dee. 8, 2011.

3. Pailasch TJ. Pharmacokinetic principles of antimicrobial therapy. Periodontol 2000 1996;10:5-11.

4. Musoke RN, Revathi G. Emergence of multidrug-resistant gram-negative organisms in a neonatal unit and the therapeutic implications. J TYop Pediatr 2000;46(2):86-91.

5. Poveda Roda R, Bagan JV, Sanchis Bielsa JM, Carbonell Pastor E. Antibiotic use in dental practice: a review. Med Oral Patol Oral Cir Bucal 2007;12(3):E186-E192.

6. AmericanAcademy of Pediatric Dentistry Council on Clinical Affairs. Guideline on use of antibiotic therapy for pediatric dental patients. Pediatr Dent 2010.2011;33(6 suppl):262-264.

7. Walton RE, Zerr M, Peterson L. Antibiotics in dentistry--a boon or bane? APUA Newsletter 1997;15:(1)

8. Johnson BS. Oral infection: Principles and practice of antibiotic therapy. Infect Dis Clin North Am 1999;134:851-70.

9. Maestre Vera JR. Treatment options in odontogenic infection. Med Oral Patol Oral Cir Bucal 2004;9(Suppl S):19-31

10. Delaney JE, Keels MA. Pediatric oral pathology: Soft tissue and peri¬odontal conditions. Pediatr Clin North Am 2000;47:1125-47.

11. American Academy of Pediatrics. Herpes simplex. In: Red Book: 2003 Report of the Committee on Infectious Diseases. 26th ed. Elk Grove Village, Ill: American Academy of Pediatrics; 2003:344-53.

12. Nakamura Y, Daya M. Use of appropriate antimicrobials in wound management. Emerg Med Clin North Am 2007;25(1)159-76.

13. Keenan JV, Farman AG, Fedorowicz Z, Newton JT. A Cochrane system review finds no evidence to support the use of antibiotics for pain relief in irreversible pulpitis. J Endod 2006;32(2):87-92.

14. Khan I! Muennig P, Behta M, Zivin JG. Global drug-resistance patterns and the management of latent tuberculosis infection in immigrants to the United States. N Engl J Med 2002;347(23):1850-1859.

15. Ml. Mosbys Dental Drug Reference, 10th edition. Jeske AH, editor. Elsevier/Mosby, St. Louis, Missouri; 2012.

16. Wynn RL, Meiller TF, Crossley HL. Drug information Handbook for Dentistry, 16th edition. Lexi-Comp, Hudson, Ohio; 2010.

17. Custer JW, Rau RE. The Harriet Lane Handbook, 18th edition. Mosby/ Elsevier, Philadelphia, PA: 2009.

18. Clinical Pharmacology. Gold Standard Inc/ Elsevier. Tampa, Fl. Available at: „http://www.clinicalpharmacology-ip.com". Accessed September 17, 2012.

19. Bogle RG, Bajpai. Antibiotic Prophylaxis Against Infective Endocarditis: New Guidelines, New Controversy? Br J Cardiol 2008;15:279-80.

20. American Academy of Pediatric Dentistry (AAPD). Guideline on use of antibiotic therapy for patients at risk of infection: American Academy of Pediatric Dentistry (AAPD); 2007.

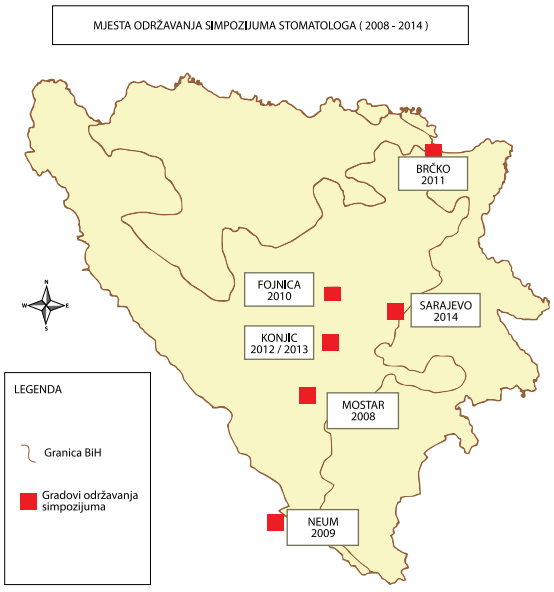
SELIMOVIĆ M., SPAHIĆ-DIZDAREVIĆ M., GANIBEGOVIĆ M.

STOMATOLOŠKI SIMPOZIJUMI KAO PROMOTORI BOSANSKO-HERCEGOVAČKOG TURIZMA

Ključne riječi: kontinualna edukacija, razvoj turizma

Mak Selimović: selimovic.mak@hotmail.com

ZNAČAJ ODRŽAVANJA NAUČNIH SKUPOVA U RAZLIČITIM MJESTIMA IMA DVA CILJA.



Sl. 1 Mjesta održavanja Simpozijuma

PRVI CILJ je prezentacija novih dostignuća u domenu svih stomatoloških disciplina, a DRUGI CILJ je turistički obilazak bosansko-hercegovačkih znamenitosti. Osim toga, družnje stomatologa iz raznih krajva zemlje i svijeta je razloga da Udruženje stomatologa Bosne i Hercegovine svake godine organizira Međunarodni Simpozijum iz opće stomatologije. Poznati predavači po pozivu inspirišu naše stomatologe da aktivno učestvuju u radu Simpozijuma sa svojim radovima i tako unapređuju BH struku i nauku.

Prvi Internacionalni simpozijum iz opće stomatologije je održan 2008. U Mostaru. U hotelu „Ero“ u Mostaru gdje se okupilo oko 1150 učesnika. Predavači su bili Prof. Hrvoje Brkić iz Zagreba i Prof.

Sl. 2 Mostar (2008.god)

Ljubomir Todorović iz Beograda i Prof. Maida Ganibegović iz Sarajeva. Učesnici su obišli i turističke znamenitosti: Stari Most, tekiju u Blagaju, nekropolu u Stocu.

Sl. 3 Neum (2009.god)

Drugi Internacionalni simpozijum iz Opće Stomatologije održan je 2009. God u Neumu. U hotelu „Sunce“. Bilo je prisutno oko 130 učesnika iz BiH

i 30 učesnika iz R. Hrvatske. Šest pozivnih predavača, Profesori: D. Makić, B. Topić, Lj. Todorović, I. Alajbeg, Z. Fuks i H. Jurić su prezentirali vrlo interesantne teme. Pored predavanja po pozivu u kongresnoj dvorani u dvije seanse održano je 19 oralnih prezentacija i prikazano 20 postera. Po završetku znanstvenog programa učesnici su organizovano išli u Dubrovnik, Međugorje i Ston na Pelješcu.

Sl. 4 Fojnica (2010.god)

Treći Internacionalni simpozijum je održan u Fojnici 2010 godine. Pozivni predavač je bio Prof. dr. Goran Koch, istaknuti predavač FDI. Osim prof. Koch-a znanstveno predavanje održali su profesori: Lj. Todorović, M. Ganibegović i H. Jurić. U sesiji oralnih prezentacija učestvovalo je 22 autora, kao i 8 autora sa poster prezentacijama. Budući da je Fojnica banjsko lječilište – Akva Reumal učesnici Simpozijuma su učestvovali u raznim SPA programima. U slobodno vrijeme obišli su Franjevački samostan, Tekiji, Prokoško jezero i napravili cjelodnevni izlet na Brusnicu.

Sl. 5 Brčko (2011.god)

Četvrti Internacionalni simpozijum je održan u Distriktu Brčko gdje se ad interim održavao III Kongres stomatologa Bosne i Hercegovine.

Predavači po pozivu su bili:
Prof. dr. sc Petros Koidis, Stomatološki fakultet Solun, Grčka
Prof. dr. sc Andrija Bošnjak, Stomatološki fakultet Univerziteta u Rijeci
Prof. dr. sc Samir Prohić, Stomatološki fakultet Univerziteta u Sarajevu,
Prof. dr. sc Jasenka Živko-Babić, Stomatološki fakultet Univerziteta u Zagrebu,
Prof. dr. sc Hamit Bostanci, Stomatološki fakultet Univerziteta u Ankari,
Prof. dr. sc Ljubomir Todorović, Stomatološki fakultet Univerziteta u Beogradu,
Akademik Berislav Topić, Stomatološki fakultet Univerziteta u Sarajevu,

U dvije sesije usmenih i dvije sesije poster prezentacija ukupno su predstavljena 33 stručna i naučna rada stomatologa iz BiH i susjedstva. Oko 200 učesnika Simpozijuma i Kongresa su u slobodno vrijeme uživali na plovidbi Savom, ribljim i gurmanskim specijalitetima sjeveroistočne BiH i posjetili prekrasno zdanje Brčanske Belvedije (Viječnice).

Sl. 6 Konjic (2012.god)

Peti Internacionalni Simpozij iz Opće stomatologije je održan u prekrasnom ambijentu Garden City-a u Konjicu. Ovaj znanstveni skup je uvršten u oficielni program zbivanja Svjetske stomatološke federacije FDI, koje nam je poslala svog predavača Prof. dr. sc Mutlu Ozcan iz Ciriha. Osim Prof. Mutlu uvodno predavanje su održali Profesori: Sead Redžepagić, Jasenka Živko-Babić i Doc. Amra Vuković.

Kroz dvije sesije usmenih i jednu sesiju poster prezentacija, na simpozijumu su predstavljena 32 stručna i naučna rada kolega iz Bosne i Hercegovin i iz inostranstva. Učesnici (oko 250) su uživali i u prirodnim ljepotama: Čvrsnice, Prenja, Boračkog jezera, a najhrabriji su išli na rafting na Neretvi

Sl. 6 Konjic (2013.god)

(Glavatičevo). Posjetili su i Titov podzemni grad.

VI Internacionalni simpozijum iz opće stomatologije je ponovo upriličen u gradu na Neretvu-Konjicu, na traženje članova Udruženja stomatologa Bosne i Hercegovine. Predavači po pozivu su bili iz Turske, Hrvatske i Bosne i Hercegovine, Ptrofesori: Ali Mentes, Eda Altinok Haznedaroglu, Božidar Pavelić, Sead Redžepagić, Muhamed Ajanović.

Oko 300 učesnika simpozijuma imali su priliku da prisustvuju na dvije sesije oralnih prezntacija gdje je predslovljeno 44 stručna i naučna rada. Kroz ovaj retrospektivni osvrt na protekle simpozijume ne treba zaboraviti aktivno učešće studenata Stomatološkog fakulteta Univerziteta u Sarajevu. Oni su predstavili mnogobrojne stručne i naučne radove pod mentorstvom nastavnika i viših asistenata.

Zaključak

U zaključku ovog rada možemo reći da je Udruženje stomatologa FbiH uspjelo da plasira našu stomatologiju na međunarodnom nazivu, pokrenulo je mlade doktore stomatologije na stručni i naučni prikaz onoga što rade. Omogučila je komunikaciju, druženje i putovanje na Simpozijum.

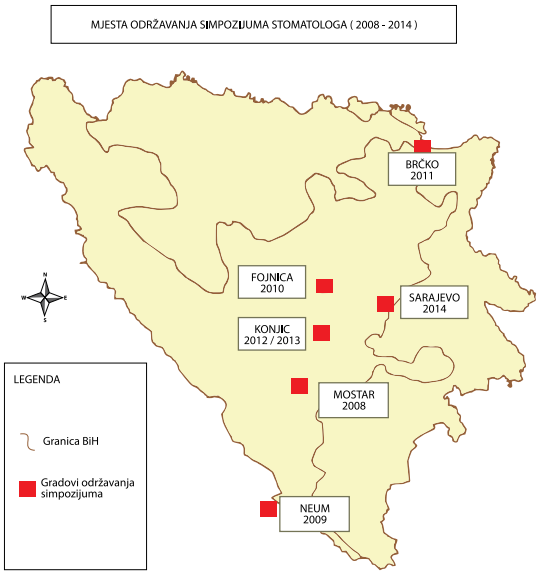
Tako da su naši Simpozijumi postali i promotori BH turizma.

Conclusions

Nowdays, global tourism started dealing with educating tourists and health care system. The trends of global tourism are destinations that offer history, gography, culture of educative health programm. Bcause of that we are organizing Simposiums all over the country with goals to present nws in BH dentistry.

SELIMOVIĆ M., SPAHIĆ-DIZDAREVIĆ M., GANIBEGOVIĆ M.

DENTAL SYMPOSIUMS AS A PROMOTER OF THE BOSNIAN-HERZEGOVINIAN TOURISM



Key words: continuing education, tourism development

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IMPORTANCE OF HOLDING SCIENTIFIC MEETINGS IN DIFFERENT PLACES HAS TWO GOALS

The first objective is the presentation of new advances in the field of dental disciplines, the second goal of sightseers Bosnian-Herzegovinian sights. In addition, the association of dentists from various parts of the country and the world is the reason that dentists Association of Bosnia and Herzegovina organizes the International Symposium of general dentistry. Notable speakers at the invitation inspire our dentists to actively participate in the Sympo-

sium with their works and so improve the BH profession and science.

Sl. 2 Mostar (2008.god)

The first international symposium of general dentistry is held 2008th in Mostar. In the hotel "Ero" where around 1,150 participants. The speakers were Prof.. J. Forensic Zagreb and Prof.. Ljubomir Todorovic in Belgrade and Prof. Maida Ganibegović from Sarajevo. Participants visited the tourist attractions: Old Bridge, this building in Blagaj necropolis in Stolac.

Sl. 3 Neum (2009.god)

The second international symposium of General Dentistry was held 2009. Neum. In the hotel "Sun". There were about 130 participants from Bosnia and Herzegovina and 30 participants from the Republic of Croatian. Six call lecturers, Professors D. Macan, B. Topic, Lj Todorovic, I. Locality and Z. Fuks and H. Juric presented very interesting topics. In addition to the invited lectures in the congress hall in the two sessions held 19 oral presentations and 20 posters presented. Upon completion of the scientific program participants are organized went to Dubrovnik, Medjugorje and Ston on the Peljesac peninsula.

Sl. 4 Fojnica (2010.god)

The third international symposium was held in Fojnica 2010. Call lecturer was Prof.. Dr. Goran Koch, a prominent lecturer FDI. In addition to Prof.. Koch's scientific lecture held by Professor Lj Todorovic, M. and H. Ganibegović Juric. The oral presentation session was attended by 22 and 8 by the poster presentations. Being Fojnica baths - Aqua Reumal Symposium participants took part in various spa programs. In their free time they visited the Franciscan Monastery, Tekke, Prokoško lake and made a day trip to the Cranberries.

Sl. 5 Brčko (2011.god)

The fourth international symposium held in Brcko, where ad interim maintained III Congress dentist Bosnia and Herzegovina.

Speakers on the call were:
Prof. Dr. Petros Koidis, School of Dental Medicine Thessaloniki, Greece
Prof. Dr. Andrija Bosnjak, School of Dental Medicine, University of Rijeka
Prof. Dr. Samir Prohic, Faculty of Dentistry, University of Sarajevo,
Prof. Dr. Jasenka Zivko-Babic, Faculty of Dentistry, University of Zagreb,

Prof. Dr. Hamit Bostanci, Faculty of Dentistry, University of Ankara,
Prof. Dr. Ljubomir Todorovic, School of Dental Medicine, University of Belgrade,
Academician Berislav Topic, School of Dentistry, University of Sarajevo,

In two sessions of oral and two poster sessions were presented to a total of 33 professional and scientific papers dentist from Bosnia and neighborhoods. About 200 participants of the Symposium and Congress are at leisure to enjoy sailing Sava, seafood and gourmet cuisine northeastern Bosnia and visited the beautiful edifice Brčanska Belvedije (City Hall).

Sl. 6 Konjic (2012.god)

Fifth International Symposium of General Dentistry, held in the beautiful surroundings of the Garden City in Konjic. This scientific meeting is included in the program of events oficielni FDI World Dental Federation, who sent us their lecturers Prof. Dr. Ozcan Mutlu from Zurich. In addition to Prof.. Mutlu introductory lecture was held by Professors Sead Redžepagić Jasenka Zivko-Babic and Doc Amra Vukovic.

Through two oral sessions and one poster session at the symposium were presented 32 professional and scientific work colleagues from Bosnia and Herzegovina and abroad. Participants (250) have enjoyed in natural beauty: Čvrsnica, Prenja, Boračko Lake, and the bravest went rafting on the Neretva

(Glavotičevo). They visited Tito's underground city.

VI International Symposium of general dentistry is again held in the city on the Neretva-Konjic, at the request of members of the Association of dentists Bosnia and Herzegovina. Speakers on the

Sl. 6 Konjic (2013.god)

call were from Turkey, Croatian and Bosnia and Herzegovina, Professors: But Mentes, Ed Altinok Haznedaroglu, Bozidar Pavelic, Sead Redžepagić, Muhamed.

Around 300 participants of the symposium had the opportunity to attend two sessions of oral preznt-acija where predslovljeno 44 professional and scientific papers. Through this retrospective review of past symposia should not forget the active participation of students, Faculty of Dentistry, University of Sarajevo. They have presented numerous professional and scientific works under the supervision of teachers and senior assistants.

Conclusion

The conclusion of this study, we can say that the dentist FBiH Association succeeded in placing our dentistry at an international level, initiated the young doctor of dentistry at the professional and scientific view of what they do and allow it to communicate, socialize and travel to the symposium.

So that our symposiums and become promoters BH tourism.

Conclusions

Nowdays, global tourism started dealing with educating tourists and health care system. The trends of the global tourism are destinations that offer history, gography, culture of educative health programm. Because of that, we are organizing Simposiums all over the country with goals to present news in BH dentistry.

References: Bulletin Stomatologia BiH, vol 13, 14, no. 38, 39, 40 years. From 2008 to 2011.

SAŽECI SA VII MEĐUNARODNOG SIMPOZIJA IZ OPĆE STOMATOLOGIJE

ABSTRACTS FROM VII INTERNATIONAL SYMPOSIUM IN GENERAL DENTISTRY

USMENE PREZENTACIJE
ORAL PRESENTATIONS

Kazazić L, Ajanović M, Redžepagić S, Gavranović Glamoč A, Tosum S.

PRIMJENA HIJALURONSKE KISELINE U STOMATOLOŠKOJ PRAKSI

Hijaluronski fileri posljednjih su deset godina postali zlatni standard kada je riječ o popunjavanju bora lica. Nekoliko je razloga velikog porasta popularnosti filera i to su njihova kompatibilnost i biološka degradacija u koži, jednostavnost primjene i neznatna bolnost kod injiciranja.Terapija hijaluronskim filerima je jednostavna i atraktivna pomoćna metoda u korekciji izgleda lica. Ona je kratkotrajna i pristupačna svima, pogotovo u pogledu estetske stomatologije, u oblikovanju osmijeha, zuba, usana i lica. Trajanje učinka tretmana zavisi od konzistencije filera (koji mogu biti vrlo rijetki, srednji i guste konzistencije) kao i od mjesta koja se tretiraju. Uobičajno trajanje je 5 do 8 mjeseci, a nakon toga se potpuno resorbuju. U svijetu a u posljednje vrijeme i kod nas doktori stomatologije se sve više bave ovim zahvatom. Taj trend posljedica je razvoja estetske stomatologije, gdje se stomatolozi sve više bave estetikom lica.

Kazazić L, Ajanović M, Redžepagić S, Gavranović Glamoč A, Tosum S

THE USE OF HYALURONIC ACID IN DENTAL PRACTICE

In the last ten years hyaluronic fillers have become the gold standard when it comes to filling facial wrinkles. There are several reasons for the large increase in the popularity of fillers, their compatibility and biological degradation in the skin, ease of use and minimal soreness at the injection site. Hyaluronic acid therapy is simple and attractive extra method for correcting facial appearance. It is short-term and accessible to all, especially with regard to cosmetic dentistry, in shaping smile, teeth, lips and face. Duration of effect of treatment depends on the consistency of fillers (which can be quite rare, medium and thick consistency) as well as of the places of tretments. Generally the duration is 5 to 8 months, and then they are beeing completely resorbed. In the other parts of the world, and in recent times, our dentists are increasingly engaged with these procedures. This trend is a consequence of the development of cosmetic dentistry where dentists are increasingly engaged with the aesthetics of the face.

Ajanović M, Hamzić A.

STEP BY STEP APPROACH IN CROWN LENGHTENING

A smile is an important non verbal method of communication and is an interaction between the teeth, the lip framework and gingival scaffold.
The smile-line is determined by the shape and size of the lips, the facial muscles, shape and size of the teeth, and the gingival tissue.
Gingival tissue present in the smile-line should exhibit balance with the contours in harmony with the upper lip. A medium smile line with minimal gingival display is considered a to be most esthetic.
This lecture will serve to explain and demonstrate: a new classifications with appropriate management based on the etiology; the complete crown lengthening surgery, including incision design, flap management and instrumentation.

Deljo E.*, Mešković B.**, Spahić-Dizdarević M.***, Porović S.***, Brkanić B.***

PROMOCIJA ORALNOG ZDRAVLJA KOD DJECE ŠKOLSKE DOBI

** Dom Zdravlja Goražde*

***Stomatološki fakultet sa klinikama Sarajevo*

****JU Dom Zdravlja Sarajevo*

Uvod: Osnovni cilj promocije oralnog zdravlja je unaprijeđenje oralnog zdravlja, pa se sa promotivnim aktivnostima treba početi od najranije dobi. Prema tome, promocija oralnog zdravlja trebala bi da predstavlja kombinaciju zdravstvene edukacije, zdravstvene zaštite i samu organizaciju zdravstvenog sistema.
Cilj rada: Prikazati aktivnosti i rezultate aktivnosti partnerskog projekta Doma Zdravlja i nevladine organizacije " Worldvision" kod djece trećih razreda osnovnih škola.
Ispitanici i metode: Od 2010. godine se u gradskim osnovnim školama provodi partnerski projekat, koji ima za cilj promociju oralnog zdravlja. Svakih šest mjeseci se vrši redovna dentalna fluorizacija i edukacija djece, koja ima za cilj naučiti djecu koliko je važno oralno zdravlje. U sklopu istraživanja izvršiti će se intraoralni pregled 70 učenika trećih razreda gradskih osnovnih škola te će se utvrditi vrijednost KEP-indeksa. Kontrolnu grupu će činiti 70 učenika područnih osnovnih škola, gdje se nije sproveo program edukacije.
Rezultati će biti statistički obrađeni i prikazani odgovarajućim tabelama I grafikonima.
Zaključak će biti izveden na osnovu rezultata samog istraživanja.
Ključne riječi: Oralno zdravlje, prevencija, djeca, karijes

Deljo E.*, Mešković B.**,Spahić-Dizdarević M.***, Porović S***. Brkanić B***

SCHOOLCHILDREN ORAL HEALTH PROMOTION

**Health Care Center, Gorazde*

***School of Dentistry with Clinics, Sarajevo*

****Health Care Center Public Institution,Sarajevo*

Introduction: The main objective of oral health promotion was to improve oral health, so promotional activities should start in early childhood. Thus, the promotion of oral health should represent a combination of oral health education, health care and the organization of healthcare system.
Objective: To show the activities and results of activities of the partnership project Public Institution Health Care Center and non-government organization " Worldvision " in children of the third grade of primary school .
Patients and Methods: Since 2010, the partnership project has been implemented in urban elementary schools, which aims to promote oral health. Regular dental fluoridation and education of children has been performed every six months, which aims to teach children of the importance of oral health. As part of the research, oral examination of 70 third-grade students of primary city schools would be done, where the DMFT – index would be determined. The control group would consist of 70 students of the district elementary schools, where the training program has not been implemented.
The results will be statistically analyzed and presented in the appropriate tables and graphs.
The conclusion will be derived from the results of the research.
Keywords: Oral health, prevention, children, caries

Gavranović-Glamoč A, Kazazić L, Memeledžija N, Piknjač A, Divanović D.

PRESJEK ZNANJA STUDENATA STOMATOLOGIJE O RIZIČNIM PACIJENTIMA (HIV/AIDS, Hepatitis B i C)

Stomatološki tretman podrazumijeva neposredni kontakt sa pljuvačkom pacijenta, a veliki broj stomatoloških intervencija i neposredni kontakt sa krvlju pacijenta. Na taj način dr stomatologije kao i studenti stomatologije mogu biti izloženi virusima B (HBV) , C (HCV) i HIV virusu. Svrha ovog istraživanja je procijeniti nivo znanja studenata o rizičnim pacijentima i njihove stavove prema postojećoj edukaciji o ovoj problematici, te ustanoviti kako se razvija i mijenja stav studenata u toku studiranja.

Gavranović-Glamoč A, Kazazić L, Memeledžija N, Piknjač A, Divanović D.

OVERVIEW OF DENTISTRY STUDENTS KNOWLEDGW ABOUT MEDICALLY COMPROMISED PATIENTS (HIV/AIDS, Hepatitis B and Hepatitis C)

Dental treatment involves direct contact with the saliva of the patient, and a large number of interventions in dentistry involve direct contact with the blood of the patient. In that way, dentists and students of dentistry can be exposed to HBV, HCV and HIV virus. The purpose of this study was to assess the level of students' knowledge about medically compromised patients, and their attitudes towards existing education on this issue, and to determine how to develop and change the attitude of students during the study.

Hundur S.

LICHEN RETICULARIS-PRIKAZ SLUČAJA

JZU Dom zdravlja „Izudin Mulabećirović-Izo", Tešanj

Uvod: Neka tipična kožna oboljenja lokalizuju se i u usnoj duplji. Patološke promjene mogu se javiti istovremeno na sluzokoži usne šupljine i po koži,ali ovaj paralelizam nije pravilo. Lichen planus je jedno od njih. Najveći broj ovih dermatoza su nepoznate etiologije. Kao etiološki faktori najčešće se pominje alergija i autoimuna priroda bolesti (pemphigus vulgaris, dermatitis herpetiforme Duhring, Erythema exudativum multiforme, sclerodermia i lichen planus). Od ostalih etioloških faktora navode se: virusna i bakterijska infekcija,poremećaj u metabolizmu, psihičke i mehaničke traume, nasljeđe, hormonalni disbalans, fokalno djelovanje.
Cilj rada: Prikazati i dokazati pojavu lichen reticularis kod djevojčice od 12 godina koja se nakon dugovremene terapije kod porodičnog ljekara samoincijativno javila na odsjek dječije i preventivne stomatologije Doma zdravlja Tešanj.
Materijal i metode: Nakon urađenih laboratorijskih i drugih testova i kvalitetno uzete anamneze od djeteta i roditelja pristupilo se liječenju pomenutog oboljenja.
Rezultati rada: Nakon konsultacija, pregleda pisanih nalaza od strane specijalista raznih grana medicine i stomatologije zaključeno je da se radi o pomenutom oboljenju.
Zaključak: Detaljno uzeta anamneza i kvalitetan stomatološki pregled će dati ispravnu dijagnozu a time i kvalitetan plan terapije.

Hundur S.

LICHEN RETICULARIS – CASE REPORT

Introduction: Some typical skin diseases localize in the oral cavity. Pathological changes can occur simultaneously at the oral mucosa and skin, but this parallelism is not a rule. Lichen ruber is one of them. Most of these dermatoses are of unknown etiology. Most often mentioned etiological factors are allergies and autoimmune diseases (pemphigus vulgaris, dermatitis herpetiforme Duhring, Erythema exudativum multiforme, sclerodermia and lichen planus). Among other ethiological factors are: viral and bacterial infection, metabolic disorder, mental, physical trauma, heritage, hormonal imbalance, focal activity.
Aim: To show and to prove the occurrence of lichen reticularis in 12 year old girl, who reported to Department of preventive and pediatric dentistry oh Public Health Care Center Tešanj, after longtime of therapy at family physicians office.
Material and methods: After medical history, taken from patient and parents, laboratory and other tests were performed, and treatment was taken.
Results: After consultation, examination of findings by specialists of various branches of medicine and dentistry it was concluded that it was mentioned disease.
Conclusion: Detailed medical history and good quality of dental examination will give a correct diagnosis and therefore the treatment plan quality.

Selimović M., Čolić D., Begeta – Efović A., Ganibegović M.

ECOLOGICAL DISPOSAL OF ORGANIC WASTE AT DENTAL OFFICE - ECO FRIENDLY DENTAL OFFICE

Toxic wastes harm human health and the enviroment. Preserving the environment is a global issue. Like all other health care professionals, dental professionals have an obligation to reduce the damaging effects of toxic waste generated in their work, and conserve natural resources. Dental offices generated a large amount of waste materials, both in liquid and those in the solid state. His proper management reduces adverse impact on the environment.
Eco friendly dental offices implement strategies to reduced production of toxic waste, and reduce its impact on the environment.
Key words: enviroment, waste, green dentistry

F.Slaki, M.Kelmendi

ORALNA KANDIDIJAZA KOD DJECE SA KRVNIM OBOLJENJIMA

Medicinski Fakultet – Stomatoloski Odsjek

Univerzitetska Djecja Klinika

Pristina, Kosova

Medju brojnim, razlicitim mikoticnim oboljenjima, najcesca i najznacajnija je candida.
Cilj rada: Determinisati orlanu infekciju kandidom kod djece sa hematoloskim oboljenjima i uporediti tu ucestalost sa zdravom djecom.
Materjal i metode rada: Ovu prospektivnu studiju uradili smo na Univerzitetskoj Djecjoj Klinici – Hematolosko Odeljenje u Pristini. U ovoj studiji je ukljuceno 50 dece sa hematoloskim oboljenje-

njima (glavna grupa) I 50 zdrave djece, u vremenskom period april/maj 2008 god. U prvoj grupi tokom tri mjeseca uradjeno je mjesecno ispitivanje dok je u drugoj grupi uradjeno je samo jedno ispitivanje.
Rezultati: Od 50 djece iz glavne grupe, njih 25 (52%) su imali pozitivan nalaz na Candidu, dok 24djece (48%) su pokazale negativan nalaz. Kod 26 djece iz prvce grupe, sa pozitivnim nalazom na candidu, 4 dece je bilo sa akutnom limfaticnom leukozom, 4 sa hemofilijom, 5 sa trombocitopenijom, 3 sa agranulocitozom, 2 sa feriprivnom anemijom, 6 sa aplasticnom anemijom I 2 sa monoblasticnom anemijom. Djeca iz kontrolne grupe su mnogo rjedje bila nosioci kandide, u odnosu na prvu grupu – samo dvoje od njih je pokazalo pozitivan nalaz.
Zakljucak; Visoki procenat kandide kod pacijenata sa hematoloskim oboljenjima je dokaz o njihovom alteriranom imunom odgovoru kod takve djece

Selimović M., Čolić D., Begeta – Efović A., Ganibegović M.

ORAL CANDIDIASIS IN CHILDREN WITH BLOOD DISEASES

Among many different mycotic diseases, for dentistry practice, the most important and the most frequent is candida .
Objective: To determine the oral candida infection in children with haematopoetic diseases and to compare it to orla candida load of healthy children.
Material and methods: prospective analysis (study) established at University Children's Hospital – Hematology Department. Study design: In this study are included 50 children with haematopoetic diseases during april may 2008 and 50 healthy schoolchildren. Monthly assessment of children in the study group over a period of three months and single assessment in the control group was performed. Assessment involved scoring oral signs and symptoms using a modified Eilers (1988) Oral Assessment Guide, before each child held 5 ml of sterile water in mouth for 30 seconds.
Results: Of 50 children from the main group, 26 (52%) were candida positive, while 24 (48%) showed negative result. 26 children with positive result had a different hematologic disorders: 4 children with acute, lymphoblastic leucosis, 4 with haemophilia, 5 with trombocitopenia , 3 with agranulocitosis, 2 with ferriprive anemia, 6 with aplastic anemia, 2 with megaloblastic anemia. Children from the control group were less likely than children from the study group to be carriers of candida – only two of them manifested positive result.
Conclusion: A high percentage of candida albicans in patients with hematologic diseases point out altered immune response in such children.
Key words: candida , hematolosko oboljenje, djeca

SAŽECI SA VII MEĐUNARODNOG SIMPOZIJA IZ OPĆE STOMATOLOGIJE

ABSTRACTS FROM VII INTERNATIONAL SYMPOSIUM IN GENERAL DENTISTRY

POSTER PREZENTACIJE
POSTER PRESENTATION

Berisalić A[1], Bejtović B[2], Tahmiščija I[1], Džanković A[1].

ENDODONTSKO-HIRURŠKA TEPAPIJA EKSTRAORALNE FISTULE DENTALNOG PORIJEKLA

[1] *Katedra za dentalnu patologiju i endodonciju, Stomatološki fakultet sa klinikama Univerziteta u Sarajevu, Bosna i Hercegovina*

[2] *Klinika za maksilofacijalnu hirurgiju, Klinički centar Univerziteta u Sarajevu, Bosna i Hercegovina*

Uvod: Dijagnoza ekstraoralne fistule dentalnog porijekla nije uvijek jednostavna. Pacijenti često bivaju podvrgnuti hirurškim ekscizijama, biopsijama, ordiniranju antibiotika, te aplikaciji različitih medikamenata na mjestu fistule. Po postavljanju adekvatne dijagnoze, u slučaju kada se zub može restaurirati, provodi se endodontska terapija.

Prikaz slučaja: 42-godišnja pacijentica je zbog promjene na koži brade, od strane ljekara porodične medicine, upućena dermatologu. Dermatolog je poslao opštem stomatologu, koji zub 43 trepanira. Potom se pacijentica javlja na Katedru za dentalnu patologiju i endodonciju, gdje se pregledom ekstraoralno uočava izbočenje kože brade promjera 5 mm, bezbolno na palpaciju, a intraoralno otok vestibularno, čijim se palpiranjem dobiva gnojno-krvavi sadržaj ekstraoralno. Na retroalveolarnom snimku uočava se nejasno organičena, rendgen svjetlina oko apeksa zuba 43 koja upućuje na hronični periapikalni apsces. Uradimo hemo-mehaničku instrumentaciju korijenskog kanala, te ga interseansno ispunimo pastom kalcij-hidroksida. Nakon 10 dana, ekstraoralno se primijeti zatvaranje fistule uz uvlačenje kože, intraoralno povlačenje otoka u vestibulumu, a radiološki smanjenje rendgen svjetline. Zub definitivno ispunimo. Zbog retrakcije kože, na Klinici za maksilofacijalnu hirurgiju uradi se operativno odstranjenje fistuloznog kanala, apeksa zuba 43 i okolnog patološkog tkiva, te plastika kože.

Zaključak: Endodontska terapija je metod izbora u liječenju kako intraoralnih, tako i ekstraoralnih fistula uzrokovanih hroničnim periapikalnim apscesom. Radiografski smanjenje veličine lezije, a klinički zatvaranje fistule, znakovi su početka uspješne terapije zbog adekvatne instrumentacije korijenskog kanala i interseansnog učinka paste kalcij-hidroksida. Hirurški tretman je potreban onda kada proces cijeljenja nije primijetan ili kada rezultira estetskim nedostatkom u vidu retrakcije kože.

Ključne riječi: ekstraoralna fistula, mandibularni očnjak, kalcij-hidroksid, endodontska terapija, hirurška terapija

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Berisalić A[1], Bejtović B[2], Tahmiščija I[1], Džanković A[1].

ENDODONTIC-SURGICAL MANAGEMENT OF AN ODONTOGENIC CUTANEOUS SINUS TRACT: A CASE REPORT

[1] *Department of Dental Pathology and Endodontics, School of Dental Medicine with Clinics, University of Sarajevo, Bosnia and Herzegovina*

[2] *Department of Maxillofacial Surgery, Clinical Center University of Sarajevo, Bosnia and Herzegovina*

Introduction: The diagnosis of an odontogenic cutaneous sinus tract (fistula) is not always simple. Patients are often subjected to surgical excision, biopsies, administering antibiotics, and the application of various medications on the site of the fistula. According to setting the appropriate diagnosis, in the case where the tooth can be restored, endodontic therapy is performed.

Case report: A 42-year-old female patient was referred to a dermatologist, due to skin alterations of the chin, by a physician of family medicine. A dermatologist has sent a patient to a general dentist, who was done a trepanation of the tooth 43. Then the patient reports at the Department of Dental Pathology and Endodontics. Extraoral examination showed the presence of lump on the skin of the chin diameter of 5 mm, painless on palpation, while the intraoral examination revealed vestibular tissue swelling, whose palpation gets supurous-bloody content extraorally. A retroalveolar radiograph reveals a poorly demarcated radiolucency around the apex of the tooth 43, which indicates to a chronic periapical abscess. The chemomechanical instrumentation and root canal filing with calcium hydroxide paste were performed. 10 days later, extraoral fistula closure with the retraction of the skin, intraoral swelling retreat in the vestibule, and radiological reduction in radiolucency were observed. Definitive root

canal filling was performed. Due to the retraction of the skin, the surgical removal of the fistula, the apex of the tooth 43 and the surrounding pathologically altered tissue is done, as well as the plastic surgery of the skin at the Department of Maxillofacial Surgery.

Conclusion: Endodontic therapy is the treatment of choice for both intraoral, and extraoral fistula caused by chronic periapical abscess. Radiographic reducing the size of the lesion, and the clinical closure of the fistula, are signs of the beginning of the successful therapy due to adequate root canal instrumentation and interappointment effect of calcium hydroxide paste. Surgical treatment is required when the healing process is not noticeable, or when an abscess resulting cosmetic defect in the form of skin retraction.

Keywords: extraoral fistula, mandibular canine, calcium hydroxide, endodontic therapy, surgical therapy

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Kurtić E, Omanović A.

STANJE ORALNOG ZDRAVLJA UČENIKA SREDNJE ŠKOLE U CAZINU

Cilj rada: Ovim radom je utvrđeno stanje oralnog zdravlja učenika Srednje škole u Cazinu,te stanje prikazano tabelarno i grafikonima.

Metodologija rada: Klinički pregled je izvršen stomatološkim ogledalcetom i oštrom sondom pri dnevnoj i vještačkoj svjetlosti. Ispitanici su učenici I-IV razreda,njih 277 (151 Ž i 126 M)rođenih 1994-1998.godine,koji dolaze iz više općina USK-a.

Rezultati istraživanja: Rezultati istraživanja su statistički obrađeni i biće prikazani tabelarno i grafikonima.Biće prikazano stanje usana,gingive,jezika,kvaliteta pljuvačke,postojanje naslaga, kamenca i fetora,stepen njege usta,postojanje nepravilnosti zubnog niza i postojanje ortodontskih nepravilnosti,te stanje zuba pojedinačno.

Zaključci: Stanje oralnog zdravlja pregledanih ispitanika je na nezavidnom nivou.Uočen je veliki broj ekstrahiranih zuba,veliki broj karioznih zuba,puno ispitanika sa oboljenjima gingive,lošom oralnom higijenom,puno ispitanika sa ortodontskim anomalijama...

Kurtić E, Omanović A.

SITUATION OF ORAL HEALTH OF STUDENTS IN THE HIGH SCHOOL IN CAZIN (USK)

Purpose of research: The result of this research reflects the situation of oral health of the students of High school in Cazin, what has been presented in tables and charts.

Methodology of research: In the clinical check-up a dental mirror and a sharp probe were used under daylight and under electric light. The patients were 277 students from classes 1 to 4, (151 F and 126 M), born from 1994-1998, and they come from several municipalities in the Una-Sana Canton.

Results of research: The research results have been statistically processed and will be presented in tables and charts. They will show the situation on lips, gums, tongue, quality of spittle, presence of sediments and fetor, the level of dental hygiene, presence of irregularities in the tooth positioning and orthodontic irregularities, and the condition of each tooth individually.

Conclusions: The situation in the oral health of the patients is at an unsatisfactory level. A lot of patients have had tooth extractions, many of them have got caries affected teeth, an unhealthy gums and bad oral hygiene, and many of them have orthodontic anomalies…

Prcić-Voloder Š, Baljić M, Bešić F.

ENDODONTSKO-HIRURŠKA TEPAPIJA EKSTRAORALNE FISTULE DENTALNOG PORIJEKLA

JU Dom Zdravlja Kantona Sarajevo, OJ Novi Grad; stomatološka služba, protetika

X transferzala bb, Sarajevo, BiH

Privatna stomatološka ordinacija "Denta-M"; Hadzeli 98, Hadzići

Obostrana fibromatoza tubera gornje vilice je generalizirano, bezbolno uvećanje mekog tkiva u predjelu tubera, koje karakteriše proliferacija fibroznog tkiva ispod sluzokože. Osim zadebljanja grebena, nema drugih kliničkih simptoma, ali ometa izradu proteza.Terapijski protokol je multidisciplinarna saradnja oralnog hirurga i protetičara, tj. hirurško odstranjenje i protetska rehabilitacija.U praksi se susrećemo sa slučajevima kada hirurški tretman nije moguće provesti, a pacijentu, narušene funkcije stomatognatnog sistema nadoknađujemo samo protetskom rehabilitacijom.

Ključne riječi: fibromatoza tubera, predprotetska hirurgija,totalna akrilatna proteza

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Prcić-Voloder Š, Baljić M, Bešić F.

BILATERAL FIBROMATOSIS OF MAXILLAR TUBEROSITY – PROSTHODONTIC TREATMENT APPROACH

Symmetrical fibromatosis of the maxillar tuberosity is typically bilateral and presents as a generalized, soft, smooth-surfaced, painless enlargement of the tissues overlying the posterior maxillary alveolus, which is characterized by the proliferation of fibrous tissue beneath the mucous membrane. This condition makes no problems for the patient except those with that interfere with function or denture placement. The treatment protocol is a multidisciplinary collaboration oral surgeon and prosthodontist. It means surgical excision and prosthetic rehabilitation.But in daily practice, we have patients were surgical treatment is not an option and functions of stomatognathic systems has to be restored only by means of prosthetic rehabilitation.

Key words: fibromatosis, maxillar tuberosity, preprosthetic surgery, total acrylic denture.

Strujić - Porović S[1], Šuljak - Lončarević A[1], Ajanović M[1].

PROTETSKA TERAPIJA PARCIJALNE RESEKCIJE MAKSILE

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Jedan od najčešćih intraoralnih defekata su defekti u maksili u formi otvora i komunikacije između usne šupljine, nosne šupljine i maksilarnog sinusa. Defekti u maksili rezultat su hiruškog tretmana benignih ili malignih neoplazmi, kongenitalnih malformacija i traume. Gubitak potpore, retencija i stabilnost su najčešći problemi tokom protetskog tretmana pacijenata koji su imali resekciju maksile.

Cilj: Cilj je bio prikazati protetsku terapiju pacijenta, sa parcijalnom resekcijom maksile, gornjom obturator protezom i donjom totalnom protezom.

Rezultati: Nakon protetske terapije pacijenta sa parcijalnom resekcijom maksile, onemogućena je komunikacija između usne šupljine, nosne šupljine i maksilarnog sinusa. Uspostavljene su funkcije govora, gutanja, žvakanja i korigovana je facijalna asimetrija.

Zaključak: Protetskom terapijom izvršena je rehabilitacija izgubljenih oralnih struktura i funkcija stomatognatog sistema.

Ključne riječi: obturator proteza, retencija, resekcija maksile

Strujić - Porović S[1], Šuljak - Lončarević A[1], Ajanović M[1].

PROSTHETIC THERAPY OF PARTIAL MAXILLAR RESECTION

[1] *Department for Prosthodontics and Dental Implantology, Faculty of Dentistry, University of Sarajevo, Bosnia and Herzegovina*

One of the most common intraoral defects are defects in the maxilla in the form of an opening and communication between the oral and nasal cavities and maxillary sinus. Defects in the maxilla are the result of surgery treatment of benign or malignant neoplasms, congenital malformation and trauma. Lack of support, retention, and stability are common prosthodontic treatment problems for patients who have had partial maxillar resection.

Aim: The aim was to present the prosthetic therapy of patient who had partial maxillar resection with maxillary obturator denture and lower complete denture.

Results: After prosthetic therapy of patient with partial maxillar resection, communication between the oral and nasal cavities and maxillary sinus is disabled. The functions of speech, swallowing and chewing are established and facial asimmetry is corrected.

Conclusion: With prosthetic therapy the rehabilitation of missing oral structures and function of the stomatognathic system was performed.

Key words: obturator denture, retention, maxillar resection.

Strujić - Porović S[1], Šuljak - Lončarević A[1], Ajanović M1, Đonlagić A[1].

OPSEG MAKSIMALNOG OTVARANJA USTA KOD PARCIJALNO BEZUBIH PACIJENATA SA SIMPTOMIMA DISFUNKCIJE TEMPOROMANDIBULARNOG ZGLOBA

[1] *Katedra za stomatološku protetiku i dentalnu implantologiju, Stomatološki fakultet sa klinikama, Univerzitet u Sarajevu, Bosna i Hercegovina.*

Zaključak: Parcijalno bezubi pacijenti sa simptomima disfunkcije temporomandibularnog zgloba su imali veći opseg otvaranja usta i hipermobilnost temporomandibularnog zgloba u poređenju sa parcijalno bezubim pacijentima bez simptoma disfunkcije temporomandibularnog zgloba.

Ključne riječi: opseg maksimalnog otvaranja usta, hipermobilnost temporomandibularnog zgloba, položaj kondila

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Strujić - Porović S[1], Šuljak - Lončarević A[1], Ajanović M1, Đonlagić A[1].

THE RANGE OF MAXIMUM MOUTH OPENING AT PARTIALLY EDENTULOUS PATIENTS WITH SYMPTOMS OF TEMPOROMANDIBULAR JOINT DYSFUNCTION

[1] *Department for Prosthodontics and Dental Implantology, Faculty of Dentistry, University of Sarajevo, Bosnia and Herzegovina*

Conclusion: Partially edentulous patients with symptoms of temporomandibular joint dysfunction had higher the range of maximum mouth opening and temporomandibular joint hypermobility in comparison to partially edentulous patients without symptoms of temporomandibular joint dysfunction.

Key words: range of maximum mouth opening, temporomandibular joint hypermobility, condyle position

Tiro A, Nakaš E, Džemidžić V, Redžepagić-Vražalica L.

KORELACIJA VERTIKALNIH I HORIZONTALNIH KRANIOFACIJALNIH DIMENZIJA KOD ISPITANIKA U II SKELETALNOJ KLASI

Univerzitet u Sarajevu, Stomatološki fakultet ,Katedra i klinika za ortodonciju

Sažetak: Cilj ove studije bio je ispitati koliki je iznos rasta verikalnih i horizontalnih dimenzija mandibule u odnosu na kvantitativne koštane promjene vratnih pršljenova kod ispitanika u II skeletalnoj klasi.

Materijal i metode: Ukupan uzorak činilo je 125 ispitanika (52 muških i 73 ženskih), u dobi od 10 do 16 godina. Analizirani su lateralni cefalogrami svih ispitanika, na kojima je utvrđena je II skeletalna klasa (ANB> 5). Na snimcima su određivane verikalne i horizontalne dimenzije mandibule i vertikalne i horizontalne dimenzije trećeg i četvrtog vratnog pršljena (C3 i C4). Mjerenje je vršeno softverskim paketom Cephalometar. Pearsonovom korelacijom testirana je povezanost među ispitivanim varijablama.

Rezultati: Pearsonov koeficijent korelacije između vertikalnih i horizontalnih dimenzija mandibule i vertikalnih i horizontalnih dimenzija C3 i C4, kreće se od 0.394 do 0.699 za muške, odnosno od 0. 264 do 0.609 za ženske ispitanike, sto je statistički signifikantno na nivou $p<0.05$. Najveći stepen korelacije r 0.699 je između prednje visine trećeg vratnog pršljena (AHCH3) i i ukupne dužine mandibule Ar-Pg, kod muških ispitanika i između PHC4 i Ar-Pg kod ženskih ispitanika gdje iznosi r 0.615.

Zaključak: Postoji signifikantna povezanost između vertikalnih i horizontalnih kraniofacijalnih dimenzija, kod ispitanika sa distalnim zagrižajem.

Tiro A, Nakaš E, Džemidžić V, Redžepagić-Vražalica L.

CORRELATION BETWEEN VERTICAL AND HORIZONTAL CRANIOFACIAL DIMENSION IN SUBJECTS WITH II CLASS MALOCCLUSION

University of Sarajevo, School of dental medicine, Department of orthodontic

Abstract: The aim of this study was to investigate the growth rates of the vertical and horizontal dimensions of mandible according to quantitative cervical vertebral maturation (QCVM) in subjects with distal occlusion.

Material and methods: 125 subjects (52 males and 73 females) with skeletal class II, between 10 to 16 years, were included in this study. On lateral cephalograms of each subject, we measured the quantitative characteristics of C3 and C4, and vertical and horizontal dimensions of mandible (Ar-Pg, Go-Gn and Ar-Go). Association between vertical and horizontal craniofacial dimension was tested by Pearson correlation.

Results: The Pearson correlation coefficient between vertical and horizontal dimension of mandible and vertical and horizontal cervical vertebral dimension (C3 and C4) ranging from 0.394 to 0.699 for male, and from 0.264 to 0.609 for female subjects, $p<0.05$. The highest correlation coefficient (r 0.699) was between AHC3 and Ar-Pg in male, and PHC4 and Ar-Pg (r 0.615) for female subjects.

Conclusion: These results show the significance correlation between vertical and horizontal craniofacial dimension in subjects with II class malocclusion.

Babačić R, Rakovec P.

DRŽAČI MJESTA U MLIJEČNOJ I MJEŠOVITOJ DENTICIJI

Klinika za Ortodonciju, Stomatološki fakultet, Univerzitet u Sarajevu

Dom zdravlja sa poliklinikom „Dr. Mustafa Šehović“ Tuzla

Zaključak: Prevencija posljedica preranog gubitka mliječnih zuba po svom značaju jednaka je profilaksi karijesa. Ortodonti i dječiji stomatolozi poznavanjem nekoliko jednostavnih, ali učinkovitih čuvara prostora, mogu spriječiti nastanak pojedinih razvojnih anomalija.

Ključne riječi: držači mjesta, gubitka prostora, prevencija

Babačić R, Rakovec P.

PLACEHOLDERS IN THE DECIDUOUS AND MIXED DENTITION

Conclusion and clinical implications: Prevention of the consequences of the premature loss of deciduous teeth is in its significance the same as the prophylaxis of dental caries. Orthodontists and Kids dentist knowing a few simple but efficient place holders can prevent the occurrence of certain development anomalies.

Key words: Placeholders, loss of space, prevention.

Hadžipašić-Nazdrajić A.

DRŽAČI MJESTA U MLIJEČNOJ I MJEŠOVITOJ DENTICIJI

Javna Ustanova Dom Zdravlja Kantona Sarajevo, Organizaciona Jedinica „Stari Grad“, Alajbegovića 1, 72 000 Sarajevo, Bosna i Hercegovina

Protetska terapija progenog pacijenta otežana je, jer se kod takvih pacijenata ne mogu primijeniti opšta pravila izrade totalnih proteza koja vrijede za klasu I. Prikazujemo terapijski protokol progenog pacijenta kome smo izradili dvije totalne akrilatne proteze, sa akcentom na odstupanja ovakvog protetskog tretmana u odnosu na terapiju pacijenata sa neutrookluzijom.

Sedam dana nakon insercije proteza, na sluzokoži nije bilo patoloških promjena, a pacijent je bio zadovoljan estetikom i funkcijom.

Ključne riječi: progenija, protetska terapija

Hadžipašić-Nazdrajić A.

SPECIFICITY IN THE TREATMENT OF THE EDENTULOUS PATIENT WITH MANDIBULAR PROGNATHISM

Public Institution Health Center of Sarajevo Canton, Health Center “Dom zdravlja Stari Grad” , Alajbegovića no.1, 71000 Sarajevo, Bosnia-Herzegovina

Public Institution Health Center of Sarajevo Canton, Health Center “Dom zdravlja Stari Grad” , Alajbegovića no.1, 71000 Sarajevo, Bosnia-Herzegovina General rules for making conventional dentures can not be applied in patient with progenia. This case study represents the therapy protocol for a patient who received complete dentures, emphasizing the differences comparing this therapy with the prosthetic therapy in a class I patient.

Dentures have been planned considering the patient’s intermaxillary relationship. One week-recall showed no pathologic changes on mucosa. Patient was satisfied with prostheses’ function and esthetic.

Key words: mandibular prognathism, prosthetic therapy

Šačić L, Rakovec P, Janeček-Pejčinović T.

FORMATIVNI POTENCIJAL APIKALNE PAPILE; APEKSOGENEZA NEZRELOG AVITALNOG ZUBA – PRIKAZ SLUČAJA

Specijalizanti Preventivne i dječije stomatologije, Stomatološkog fakuteta sa klinikama u Sarajevu, Univerzitet Sarajevo

Zaključak: Nezreli trajni zubi sa nekrozom pulpe još uvijek mogu postići dalji razvoj korijena nakon primjene odgovarajućih (kratkoročnih ili dugoročnih) postupaka regenerativnog endodontskog liječenja. Ovaj prikaz slučaja ističe ulogu matičnih ćelija dentalne papile u nastavku razvoja korjena nezrelog zuba, čak i kada je avitalan.

Ključne riječi: Apikalna papila, nezreli avitalni zubi, apeksogeneza.

Šačić L, Rakovec P, Janeček-Pejčinović T.

FORMATIVE POTENCIAL OF THE APICAL PAPILL; APEXOGENESIS IMMATURE PULPS OF TEETH – A CASE REPORT

Residents of Preventive and children's dentistry, Dental faculty with clinics in Sarajevo, University of Sarajevo

Conclusion: Immature permanent teeth with pulp necrosis can still achieve further development of roots after application of appropriate (short or long) procedures regenerative endodontic treatment. This case highlights the role of stem cells in the dental papilla below the root development of immature teeth, even when non-vital.

Key words: Apical papilla, immature non-vital teeth, apexogenesis

Zukić S, Vuković A, Bajsman A.

MORFOLOŠKE ANOMALIJE ZUBA – TERAPIJSKI IZAZOVI

Katedra za morfologiju zuba sa dentalnom antropologijom i forenzikom, Stomatološki sa klinikama, Sarajevo, Bosna i Hercegovina

Urođene i stečene dentalne anomalije definiraju se kao odstupanja od uobičajenog ili normalnog broja, veličine, oblika, strukture ili položaja zuba. Posmatrani kroz prizmu kliničke prakse, slučajevi pojave dentalnih anomalija i promjena koje oni izazivaju u vilicama upućuju nas na moguće oralno-zdravstvene probleme kod pacijenata, kao što su smanjena mogućnost samočišćenja i povećana akumulacija biofilma, povećana incidenca karijesa i parodontalnih oboljenja, povećana incidenca ortodontskih anomalija, mogućnost nastanka poremećaja u temporomandibularnom zglobu. Poseban aspekt čine estetski disbalansi orofacijalne regije, kod osoba sa morfološkim anomalijama zuba.

Cilj rada je prikazati mogućnosti tretmana nekih slučajeva u našoj kliničkoj praksi.

Ispitanici i metode: U radu su prikazani pacijenti Klinike za dentalnu patologiju i endodonciju Stomatološkog fakulteta Univerziteta u Sarajevu kod kojih je utvrđeno prisustvo morfoloških anomalija. Načinjene su ekstraoralne i intraoralne fotografije i radiografski snimci, uzeti otisci i izliveni studijski modeli. Kada je to bilo moguće, pacijenti su tretirani konzervativno, a u drugim slučajevima bila je neophodna saradnja sa specijalistima ortodoncije, oralne hirurgije i protetike.

Ključne riječi: morfologija zuba, dentalne anomalije, terapija

Zukić S, Vuković A, Bajsman A.

MORPHOLOGICAL ANOMALIES OF TEETH – THERAPEUTIC CHALLENGES

Department for dental morphology with dental anthropology and forensic dentistry, Faculty of Dentistry, Sarajevo, Bosnia and Herzegovina

Congenital and acquired dental anomalies are defined as deviations from the usual or normal number, size, shape, structure or position of teeth. Observed through the prism of clinical practice, cases of dental anomalies and changes they cause in the the jaws point to the possible oral health problems in patients, such as reduced self-cleaning

ability and increased accumulation of biofilm, increased incidence of dental caries and periodontal disease, an increased incidence of malocclusion , the potential for temporomandibular disorders. Aesthetic imbalance in the orofacial region represents special aspect of problem in patients with morphological anomalies of the teeth.

The aim of this paper is to show the treatment possibilities of some cases in our clinical practice.

Patients and methods: This paper shows patients of Clinic for dental pathology and endodontics of Faculty of Dentistry, University of Sarajevo. The presence of morphological anomalies of teeth has been found in these patients. Extraoral, intraoral photography and radiographs were made, impressions were taken, and study models were casted. Patients were treated conservatively, if possible, and in other cases, collaboration with specialists in orthodontics, oral surgery and prosthetics was necessary.

Key words: dental morphology, dental anomalies, therapy.

Jakupović S, Prcić – Konjhodžić A, Džanković A, Berisalić A.

PRIMJENA ULTRAZVUKA U ENDODONTSKOJ TERAPIJI GORNJEG MOLARA SA DENTIKLOM – PRIKAZ SLUČAJA

Ultrazvuk u savremenoj endodonciji ima široku terapijsku primjenu. Primarno se koristi kao sredstvo za pospješenje irigacije, ali osim toga nudi mogućnosti fine obrade dentina koja omogućava vizualizaciju ulaza u korjenske kanale i preparaciju ljevkastog pristupa korjenskom kanalu.

Fokalne ili ograničene kalcifikacije pulpe poznate su kao dentikli ili pulpoliti, sreću se kako u pulpama oboljelih tako i klinički zdravih zuba ljudi svih dobnih grupa. Dentikli se veoma često pronalaze u pulpama i to do 66% u osoba 10-20 godina i do 90% u osoba izmedu 50 i 70 godina, od čega ih je samo 15% vidljivo na rendgenografijama.Dijagnosticiraju se slučajno u toku ekstirpacije pulpe ili rendgenografijom. Njihovo prisustvo može kompromitirati endodontsku terapiju.

U radu je prikazan endodontski tretman zuba 27 sa velikim vezanim dentiklom komore pulpe, koji je obliterirao ulaze u korjenske kanale. Prikazan je i način primjene ultrazvučnog nastavka CAVI 1 predviđenog za uklanjanje dentina, u svrhu oslobađanja pristupa korjenskim kanalima te omogućavanja endodontskog tretmana.

Jakupović S, Prcić – Konjhodžić A, Džanković A, Berisalić A.

USE OF ULTRASOUND IN ENDODONTIC THERAPY OF THE UPPER MOLAR WITH CARACTERISTIC PULP STONE – CASE REPORT

Ultrasound has broad therapeutic applications in contemporary endodontics. It is primarily used as a means of enhancing irrigation, but furthermore offers the possibility of fine dentine treatment. Visualization of the entrance to the root canals and preparation of a funnel approach using ultrasound is facilitated and safer compared with the conventional treatment.

Focal or limited calcified masses of the pulp are known as denticles or pulp stones. The pulp denticles can be found in inflamed as well as clinically healthy teeth in humans of all age groups. The prevalence of denticles exceeds 66% in individuals aged 10 to 20 years and up to 90% with an age range from 50 to 70 years, of which only 15% can be seen in radiography. They can be found accidentally during the extirpation of the pulp or in radiographs. Their presence may compromise endodontic therapy.

This paper presents endodontic treatment of maxillary molar with a large attached pulp stone, occluding entering of root canals. In order to enable access the root canal, ultrasonic diamond-coated CAVI tips (VDW) for access cavity refinement were used, which greatly facilitate the endodontic treatment.

Jakupović S, Korać S,Tahmiščija I, Branković L .

PRIKAZ DISTRIBUCIJE NAPREZANJA NA ABFRAKCIONIM LEZIJAMA RAZLIČITE KONFIGURACIJE METODOM KONAČNIH ELEMENATA

Zubna tkiva podložna su različitim promjenama tokom života, jer su prirodno predodređena za mehaničko opterećenje pri funkcionalnim i parafunkcionalnim stanjima. Trajnost zuba zavisi od vrste okluzije te raspodjele okluzalnih sila. Fraktura tvrdih zubnih tkiva u direktnoj je vezi sa intenzitetom naprezanja u određenom vremenskom periodu. U uskoj vezi sa djelovanjem i prenosom sila duž zuba je poseban klinički entitet nazvan abfrakcija. Abfrakciona lezija je vrsta nekarijesne cervikalne lezije (NCCL) koja predstavlja mikrostrukturni gubitak zubnog tkiva, nastao usljed djelovanja okluzalnih biomehaničkih sila u području najveće koncentracije stresa-napona tj. u cervikalnoj regiji.

Cilj rada bio je primjenom numeričke metode – metode konačnih elemenata (FEM) u odgovarajućem računarskom programu izvršiti analizu naprezanja mandibularnog premolara pod paraaksijalnim opterećenjem, te prikazati na koji način oblik abfrakcione lezije utiče na raspodjelu naprezanja u zubu i leziji.

Za analizu je odabran mandibularni prvi premolar, obzirom da je prevalenca nekarijesnih cervikalnih lezija najviša upravo na ovom zubu. Za prikaz naprezanja korištena je hipoteza najveće distorzijske energije (Von Mises naprezanja) koja omogućava određivanje ukupnih rezultujućih naprezanja u svakoj tački posmatranog objekta – elemenata zuba.

Jakupović S, Korać S,Tahmiščija I, Branković L .

STRESS DISTRIBUTION ON ABFRACTION LESIONS USING FIN ITE ELEMENT METHOD

Dental tissues are subjected to various changes during life and designed to withstand functional and parafunctional mechanical loadings. Teeth durability depends on the type of dental occlusion and distribution of occlusal forces . Fracture of dental hard tissues is in direct relation to the intensity of the stress in a given period of time . Abfraction lesion is a type of noncarious cervical lesion that represents a sharp defect on the cervical tooth region, caused by an action of occlusal biomechanical forces.

The goal of the study is, by means of numerical method – the finite element metod (FEM), in appropriate computer program, conduct a stress analysis of the mandibular premolar, with different type of cervical lesions, under paraaxial static load. For the analysis is chosen mandibular first premolar, tooth with the highest prevalence of noncarious cervical lesions. In order to show stress in every point of observed object, hypothesis of the highest distortion energy (Von Misses stres) is used.

Porović S.[1], Duratbegović D.[2], Smajić R.[2]

TRAJNA OPTURACIJA KORIJENSKIH KANALA MLADIH TRAJNIH MOLARA MATERIJALIMA NA BAZI EPOKSI SMOLE - PRIKAZ VIŠE SLUČAJEVA

[1] *JU DZ Kantona Sarajevo,*

[2] *Klinika za preventivnu i dječiju stomatologiju, StomatološkI fakultet sa klinikama u Sarajevu*

Uvod: Savremene paste za trajnu opturaciju korijenskih kanala imaju osobinu prolongiranog stvdrnjavanja. Prednosti tih materijala su lakša manipulacija pri definitivnom punjenju višekorijenih zuba i mogućnost korekcije punjenja u narednih 24-48 sati. Nedostatak ovih materijala je djelomična resorpcija, koja za posljedicu ima lošije herme-

tičko zatvaranje apikalnog dijela kanala. Taj nedostatak se kompenzira aplikacijom gutaperka poena u dovoljnoj količini i minimalnom količinom paste za punjenje. Paste na bazi epoksi smola su najčešće korištena sredstva za definitivnu opturaciju korijenskih kanala stalnih zuba.

Materijal i metode: Prikazan je tok endodontskog tretmana, trajna opturacija višekorjenih zuba materijalom na bazi epoksi smola i gutaperka poenima na tri mlada trajna molara. Kvalitet punjenja je evaluiran klinički i analizom RTG snimaka.

Cilj rada je prikazati način i metode punjenja kanala višekorijenih zuba materijalima na bazi epoksi smole kod djece, kao i njihove prednosti i nedostatke.

Ključne riječi: mladi trajni molari, trajna opturacija korijenskog kanala, epoksi smola

Porović S.[1], Duratbegović D.[2], Smajić R.[2]

ROOT CANAL OBTURATION WITH EPOXY-RESIN BASED SEALERS OF YOUNG PERMANENT MOLARS – SEVERAL CASES REPORT

[1]Public Health Center, Sarajevo Canton

[2]Clinic for pediatric and preventive dentistry, Faculty of Dentistry, Sarajevo

Introduction: Contemporary sealers used for permanent root canal obturation have prolonged setting reaction. Benefits of materials with prolonged setting reaction are easier for manipulation during permanent root canal obturation and a possibility for correction during next 24-48 hours. Disadvantage of these sealers is partial resorption that leads to micro leakage of apical part of root canal obturation. This can be avoided by using less amount of sealing material. Materials based on epoxy resins are most used for permanent root canal obturation of permanent teeth.

Materials and methods: Permanent root canal obturation is done at three young first permanent molars using epoxy resins based sealers with delayed setting reaction and gutta-percha points. The quality of obturation was evaluated clinically and by X-ray analysis.

The aim oh this paper is to show methods of root canal obturation with materials with delayed time of setting at children, their advantages and disadvantages.

Keywords: Young permanent molars, root canal obturation, epoxy resin-based root canal sealer

Gojkov-Vukelic M[1], Hadzic S[1], Hafizović A[2].

TRAJNA OPTURACIJA KORIJENSKIH KANALA MLADIH TRAJNIH MOLARA MATERIJALIMA NA BAZI EPOKSI SMOLE - PRIKAZ VIŠE SLUČAJEVA

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Cilj rada je prikazati klinički slučaj pacijentice sa kombinovanim oralnim lichen planus-om i leukoplakijom koja se javila na Kliniku za oralnu medicinu i parodontologiju, Stomatološkog fakulteta. Opisat ćemo klinički nalaz, dijagnostički i terapijski protokol sa histopatološkom analizom i protokolom kontinuiranog praćenja.

Zaključak: Histopatološka analiza je imperativ za postavljanje dijagnoze kombinovane bijele lezije na oralnim sluznicama.Terapijski protokol mora biti usmjeren ka pružanju simptomatskog liječenja - smanjiti bol,spriječiti sekundarnu infekciju i ubrzati epitelizaciju. Protokol kontinuiranog praćenja obavezuje na redovan detaljan klinički pregled sluznica, te po potrebi kontrolne biopsije zbog moguće maligne alteracije i poslije 10 godina praćenja.

Ključne riječi: oralni lichen planus, leukoplakija, patohistološki nalaz

Gojkov-Vukelic M[1], Hadzic S[1], Hafizović A[2].

THE IMPORTANCE OF HISTOPATHOLOGICAL ANALYSIS FOR THE COMBINED DIAGNOSIS OF WHITE LESIONS ON THE ORAL MUCOSA

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[2] Clinic for Oral Medicine and Periodontology, Faculty of Dentistry, University of Sarajevo

The aim of the paper is to present a clinical case of a patient with combined oral lichen planus and leukoplakia who came to the Department of Oral Medicine and Periodontology at the Faculty of Dentistry. We will describe the clinical findings, diagnostic and therapeutic protocols with histopathological analysis and protocol for continuous monitoring.

Conclusion: Histopathological analysis is imperative for the diagnosis of combined white lesions on the oral epithelium. Therapeutic protocol must be directed toward providing symptomatic treatment –pain reduction, prevention of secondary infection, and acceleration of epithelialization. The protocol of continuous monitoring is a commitment to regular detailed clinical examination of oral epithelia and, if necessary, a control biopsy due to possible malignant alteration even after 10 years of monitoring.

Keywords: oral lichen planus, leukoplakia, histopathological findings

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Hadžić S[1],Gojkov-Vukelić M[1],Suljić Hujić Dž[2],Pjano A[2].

HIPERPLASTIČNI GINGIVITIS KAO ODGOVOR NA BAKTERIJSKI PLAK (BIOFILM) – PRIKAZ SLUČAJA

[1]Katedra za oralnu medicinu i parodontologiju, Stomatološki fakultet, Univerzitet u Sarajevu

[2] Klinika za oralnu medicinu i parodontologiju, Stomatološki fakultet, Univerzitet u Sarajevu

Zaključak: Prisustvo plaka (biofilma) dovodi do hiperplazije gingive. Za uspješan dugotrajan terapijski ishod, nakon hirurškog tretmana, neophodno je dobro održavanje oralne higijene.

Ključne riječi: hiperplazija gingive, plak - biofilm, gingivektomija

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Hadžić S[1],Gojkov-Vukelić M[1],Suljić Hujić Dž[2],Pjano A[2].

HYPERPLASTIC GINGIVITIS AS A RESPONSE TO BACTERIAL PLAQUE (BIOFILM) – CASE STUDY

[1] Department of Oral Medicine and Periodontology, Faculty of Dentistry, University of Sarajevo

[2] Clinic for Oral Medicine and Periodontology, Faculty of Dentistry, University of Sarajevo

Conclusion: The presence of plaque (biofilm) leads to gingival hyperplasia. For a successful long term outcome following a surgical treatment, it is necessary to maintain good oral hygiene.

Keywords: gingival hyperplasia, plaque - biofilm, gingivectomy.

Nakaš E, Selmanagić A, Smajić R, Čaršimamović Dž.

UTICAJ DOBI, POLA I ZANIMANJA NA PROCJENU ESTETIKE OSMIJEHA

Cilj ovog istrazivanja je bio da procjeni uticaj starosti, pola (muški , ženski) i zanimanja na procjenu estetike osmijeha .

Materijal i metoda: Istraživanje je obuhvatilo muške i ženske ispitanike različite starosti i zanimanja koji su na osnovu crno bijelih fotografija osmijeha Evaluacija estetike je procjenjivana subjektivno i ocjenjivana ocjenama na skali od 1- 10.

Nakaš E, Selmanagić A, Smajić R, Čaršimamović Dž.

INFLUENCE OF AGE, SEX AND PROFESSION ON AESTHETIC SMILE ESTIMATION

The aim of this investigation was to estimate impact of age, sex (male, female) and profession on a smile aesthetic.

Material and method: This investigation was comprised of male and female examiners of different age and profession who have analyzed smile beauty on the black and white photographies. Aesthetic evaluation was estimating subjectively and it was valued with grades from 1 to 10.

Sadagić A.

ANALIZA STANJA ORALNOG ZDRAVLJA KOD PACIJENATA PREDŠKOLSKOG I ŠKOLSKOG UZRASTA

Cilj rada je unaprijediti zdravlje djece s ciljem očuvanja oralnog zdravlja i razvijanje svijesti djece o potrebi održavanja zdravlja zuba radi općeg zdravstvenog stanja.

Podići razinu znanja o važnosti provođenja pravilne oralne higijene za očuvanje oralnog zdravlja i poboljšanje oralno-higijenskih navika, te smanjiti incidenciju, u prvom redu karijesa i parodontnih bolesti. Također uključiti i roditelje u cilj rada i dati im korisne informacije o važnosti oralnog zdravlja njihove djece.

Materijali i metode: Analiza je provedena kroz pregled ukupno 582 učenika, odnosno djece iz predškolskih ustanova, vrtića i osnovnih škola

Ključne riječi: analiza, primarna zdravstvena zaštita, djeca, općina Bugojno

Sadagić A.

ANALYSIS OF ORAL HEALTH IN PATIENTS PREESHOOL AND SCHOOL-AGE CHILDREN IN BUGOJNO

The aim is to improve the health of children in order to maintain oral health and awareness of children about the need to maintain the health of teeth due to a general medical condition.

Raise the level of knowledge about the importance of conducting correct oral hygiene for the preservation of oral health and improve oral hygiene habits, and reduce the incidence, primarily dental caries and periodontal disease.

Also involve parents in the goal and give them useful information about the importance of oral health of their children.

Materials and methods: The analysis was conducted through a survey of a total of 582 students, in schools and kindergartens and primary school.

Keywords: analysis, primary health care, children, Bugojno

Karahasan A, Zilić A.

STANJE PRVIH STALNIH MOLARA KOD POPULACIJE OD 7-12 I 13-21 GODINU NA PODRUČJU ZENICE

Cilj: Cilj ovog rada je da se prvenstveno prikaže stanje i izvrši uporedna analiza strukture karioznih,ekstrahovanih i plombiranih (KEP) prvih stalnih molara kod dvije navedene populacije.

Zaključak: Sa ciljem dobivanja što relevantnijih podataka o stanju prvih stalnih molara prvenstveno na području grada Zenice te šire potrebno je proširiti uzorak ovog istraživanja kako bi kreiranje preventivnih programa iz domena stomatologije bilo sveobuhvatno.

Ključne riječi: prvi stalni molari, prevalencija karijesa, struktura KEP-a

Karahasan A, Zilić A.

CONDITION OF FIRST PERMANENT MOLARS AT POPULATIONS FROM 7-12 YEARS OF AGE AND FROM 13-21 YEARS OF AGE AT THE TERRITORY OF ZENICA

Aim: The aim of the paperwork is primarily to present the condition and to complete parallel analysis structure of decayed, missing and filled first permanent molars at two mentioned populations.

Conclusion: In order to get more relevant data of first permanent molars condition primarily at the territory of Zenica and further, it is necessary to expand the sample of the research so that creation of preventive program from the domain of dentistry could be comprehensive.

Key words: first permanent molars, prevalence of caries, structure of DMF

M. Selimović, Čolić D., Begeta - Efović A., M. Ganibegović

EKOLOŠKO ZBRINJAVANJE OTPADA U STOMATOLOŠKIM ORDINACIJAMA - ECO FRIENDLY STOMATOLOŠKA ORDINACIJA

Toksični otpad škodi ljudskom zdravlju i okolišu. Očuvanje okoliša je globalni problem. Kao i svi ostali zdravstveni radnici, stomatološki profesionalci imaju obavezu da smanje štetne posljedice toksičnog otpada u svom radu, kao i očuvanju prirodnih resursa. Stomatološke ordinacije generiraju veliku količinu otpadnog materijala, kako u tečnom, tako i onih u čvrstom stanju. Njegovim pravilnim upravljanjem smanjuje se negativan uticaj na životnu sredinu.
Eco friendly stomatološke ordinacije implementiraju strategije u cilju smanjene proizvodnje toksičnih otpada, te smanenju njegovog uticaja na životnu sredinu.
Od kontaminiranog otpada posebnu kategoriju u stomatološkim ordinacijama čine igle i šprice za jednokratnu upotrebu-direktni kontakt sa krvlju.
Ključne riječi: okoliš, otpad, zelena stomatologija

ECOLOGICAL DISPOSAL OF ORGANIC WASTE AT DENTAL OFFICE - ECO FRIENDLY DENTAL OFFICE

Toxic wastes harm human health and the enviroment. Preserving the environment is a global issue. Like all other health care professionals, dental professionals have an obligation to reduce the damaging effects of toxic waste generated in their work, and conserve natural resources. Dental offices generated a large amount of waste materials, both in liquid and those in the solid state. His proper management reduces adverse impact on the environment. Eco friendly dental offices implement strategies to reduced production of toxic waste, and reduce its impact on the environment.
Key words: enviroment, waste, green dentistry

DENTALNA IZLOŽBA / DENTAL EXIBITION

Colgate, Sarajevo

Eliksir d.o.o., Posušije

GlaxoSmithKline, Ljubljana

Radix d.o.o. Konjic

Dental Šehović, Sarajevo

Krajinalijek Banja Luka

Biassco d.o.o., Usora

Neodent, Tuzla

Dental Product, Zenica

Johnson & Johnson

Apiflora, Sarajevo

VII INTERNACIONALNI SIMPOZIJ IZ OPŠTE STOMATOLOGIJE U RIJEČI I SLIKAMA

VII INTERNATIONAL SYMPOSIUM IN GENERAL DENTISTRY IN WORDS AND PICTURES

Sedmi godišnji susret stomatologa Federacije Bosne i Hercegovine održan je na Stomatološkom fakultetu u Sarajevu, posljednjeg vikenda mjeseca marta, u organizaciji Udruženja stomatologa FBiH i ove visokoškolske ustanove. S ponosom ponavljamo, da je Sedmi simpozijum iz Opće stomatologije dio oficijelnog kalendara zbivanja Svjetske stomatološke fedracije (FDI). Simpozijum je dio kontinuirane edukacije doktora stomatologije, na kojem se kroz predavanja gostujućih predavača, usmene i poster prezentacije obrađuju aktuelne teme značajne za praksu u svim stomatološkim disciplinama.

Program je počeo u petak, 28.03., registracijom učesnika i pripremom izložbe dentalnih materijala i opreme. Večera je upriličena u hotelu „Europa“.

U subotu je uslijedilo otvaranje izložbe stomatološkog materijala i opreme. Dentalna izložba je ove godine bila veoma bogata, i na njoj je izlagalo devet renomiranih firmi: Colgate, Elixir, GSK, Radix, Dental Šehović, Krajinalijek, Biassco, Johnson & Johnson, Api Pharma.

Radni dio Simpozijuma započeo je ceremonijom otvaranja, na kojoj se sudionicima prva obratila Predsjednik Udruženja stomatologa Fedracije Bosne i Hercegovine, Prof. Dr sc. Maida Ganibegović- Selimović. U svom obraćanju podsjetila je prisutne na sve što je Udruženje postiglo u svojih 16 godina postojanja, osvrnula se na rad Sekcije Udruženja, te sa posebnim ponosom predstavila Predsjednicu Svjetske stomatološke fedracije (FDI) Dr Tin Chun Wong.

Tako se po prvi put na bosanskohercegovačkom stomatološkom skupu obratila Predsjednica FDI. Ovom prilikom je uručila kristalnu plaketu Prof. Dr sc. Maidi Ganibegović-Selimović, koju inače Svjetska stomatološka fedracija dodjeljuje za doprinos nauci, ali i ostavila mirisni trag zemlje iz koje dolazi (Hong-Kong, mirisna luka).

Skup su također pozdravili Prof. Dr sc. Sead Redžepagić, Dekan Stomatološkog fakulteta u Sarajevu i Prof. Dr sc. Harry- Sam Selikowitz, Potpredsjednik Naučnog komiteta FDI.

Radni dio simpozijuma je nastavljen u Dekanatu Stomatološkog fakulteta.

Naučni dio simpozijuma započeo je izlaganjima pozivnih predavača. Ove godine smo imali izuzetnu čast čuti izlaganja četiri eminentna predavača, od kojih je Prof. Dr sc. Norina Consuela Forna iz Rumunije izlagala na temu „ Actualities in classic and modern approaches in impanto-prosthetic rehabilitation“.

Izlaganje Prof. Dr sc. Muhameda Ajnaovića nosilo je naslov „Augmentacijske mogućnosti kod atrofirane maxile“, dok je Prof. Dr sc. Ivan Alajbeg, sa Stomatološkog fakulteta Sveučilišta u Zagrebu predavao o „ The mouth and sexually transmitted diseases“. Akademik Prof. Dr sc. Berislav Topić je predavao na temu „ Pigmentacija oralnih sluznica- dijagnostička enigma?!“.

Kroz sesije usmenih i poster prezentacija, na Simpozijumu je predstavljeno ukupno 29 stručna i naučna rada kolega iz Bosne i Hercegovine i inostranstva. Sesije su bile praćene diskusijama i razmjenama stručnih i naučnih iskustava.

S posebnim zadovoljstvom možemo istaći veliku zainteresiranost studenata našeg fakulteta za istraživački rad i aktuelna zbivanja u struci.

Za uvažene goste su bili organizirani izleti u Mostar i Dubrovnik, kao i razgledanje znamenitosti (Muzej Sarajeva, Tunel spasa, Umjetnička galerija BiH, Narodno pozorište...) i prekrasnih dijelova našeg grada.

Simpozijum je bio prilika za susrete, upoznavanje, razmjenu iskustava i druženje.

Po završetku radnog dijela Simpozijuma druženje učesnika je nastavljeno na svečanoj večeri u hotelu Europa, uz muziku i ples. Ugodno druženje trajalo je do kasno u noć.

Slijedeći sastanak zakazujemo za godinu dana, na VIII Internacionalnom Simpozijumu iz Opće stomatologije. Očekujemo vas!

IZVJEŠTAJ SA DRUGOG RADNOG SASTANKA SEKCIJE ZA ORALNU MEDICINU I PARODONTOLOGIJU

Drugi radni sastanak Sekcije za oralnu medicinu i parodontologiju održan je 29.03.2014. godine u amfiteatru Stomatološkog fakulteta u Sarajevu.

Sastanak je otvorio i vodio Doc. dr sci. Pašić Enes.

Kao počasni ćlan Akademik prof. dr sci. Topić Berislav pozdravio je prisutne i zahvalio se na odzivu.

U svom izlaganju Akademik Topić se osvrnuo na statističke podatke Ministarstva zdravstva o oralnom zdravlju u kantonu Sarajevo.

Prisutni su upoznati sa prijedlogom za izbor novog;

1. Predsjednik; Doc.dr sci Pašić Enes
2. Zamjenik predsj.; Spec.dr sci Suljić Džejma
3. Generalni sekretar; Spec.mr.sci.dr Husarić Belma
4. Tehnički sekretar;Dr.Jazvin Denijal

Sekcije,što je i prihvaćeno od strane prisutnih.

Statut sekcije će biti naknadno pripremljen do slijedećeg okupljanja,koje je planirano nakon početka nove školske akademske godine.

Na kraju se Doc. Dr sci Pašić Enes zahvalio svim prisutnima na požrtvovanosti,i želji za očuvanjem Sekcije .

KALENDAR KONGRESA

UAE INTERNATIONAL DENTAL CONFERENCE &ARAB DENTAL EXHIBITION AEDC
Mjesto: Dubai, UAE
Datum: 17.-19. februar 2015.
www.aeedc.org

IDS 2015 36TH INTERNATIONAL DENTAL SHOW(BIENNIAL MEETING)
Mjesto: Keln, Njemačka
Datum: 10.-14. mart 2015.
www.ids-cologne.de

8TH INTERNATIONAL SYMPOSIUM OF DENTAL ASSOCIATION OF B-H
Mjesto: Fojnica, Bosna i Hercegovina
www.usfbih.org

20TH BaSS CONGRESS
Mjesto: Bukurešt, Rumunija
Datum: 23.-26. april 2015.
www.e-bass.org

21TH INTERNATIONAL DENTAL CONGRESS OF TURKISH DENTAL ASSOCIATION
5TH NEIGHBORING COUNTRIES DENTAL ASSOCIATIONS COLLABORATION PLATFORM
Mjesto: Istanbul, Turska
Datum: 10. maj 2015.
www.tdb.org.tr

81TH INTERNATIONAL CONGRESS OF ITALIAN DENTAL ASSOCOATION
Mjesto: Sardegna, Italija
Datum: 11.-13. juni 2015.
e-mail: aiosardegna@aio.it

EUROPEAN ORGANISATION FOR CARIES RESEARCH – ORCA 2015
Mjesto: Brisel, Belgija
Datum: 1.-4. Juli 2015.
www.orca-caries-research.org

IAPD 25TH CONGRESS
Mjesto: Glasgow, Velika Britanija
Datum: 1.-4. Juli 2015.
www.iapd2015.org

UDRUŽENJE STOMATOLOGA FBIH ORGANIZUJE

VIII MEĐUNARODNI SIMPOZIJUM IZ OPĆE STOMATOLOGIJE
IV KONGRES STOMATOLOGA FBIH
27.- 29. MARTA 2015.
AQUAREUMAL, FOJNICA, BOSNA I HERCEGOVINA

NAUČNI PROGRAM

FDI predavači :

Prof. dr. Mariam Margvellashvili - SAD
Prof.dr. Georg Mayer - Njemačka
Pozivni predavači sa univerziteta iz : Bosne i Hercegovine, Hrvatske, Rumunije, Srbije i Turske
Stručna i naučna predavanja iz svih stomatoloških specijalnosti

Workshops-radionice

IZLOŽBA STOMATOLOŠKOG MATERIJALA I OPREME, dentalnih i farmaceutskih kompanija iz zemlje i inostranstva

DRUŠTVENI PROGRAM

Koktel dobrodošlice,Svečana večera,izlet na Prokoško jezero,Franjevački samostan,

Aquareumal SPA program sa termalnom radioaktivnom vodom,Wellness program.....

F O J N I C A - C I T Y O F T H E H E A L T H !!

FDI World Dental Federation
M e m b e r

KOTIZACIJE :

	Do 31.12.2014.	Od 1.01.2015.	Na dan održavanja
Članovi USFBiH	80 KM	100 KM	150 KM
Autori radova i specijalizanti	50 KM	50 KM	50 KM
Studenti	20 KM	20 KM	30 KM
Ostali učesnici	100 KM	120 KM	180 KM

Uplate se mogu vršiti na račun broj 1602000000046098 Vakufska banka Sarajevo .
Sa naznakom Kotizacija za učešće na VIII simpozijumu stomatologa.

PRIJAVA RADOVA :

Pozivamo doktore stomatologije da uzmu aktivno učešće u naučnom dijelu Simpozijuma sa svojim stručnim i naučnim radovima.

Rok za prijavu radova je 15. Januar 2015 god.

Sažetke radova slati na e-mail adresu : dent.associationbh@hotmail.com
Sažetak treba da sadrži ciljeve i metode,rezultate i zaključke rada, maksimalno 250 riječi i prevod na engleski.

Pozivamo vas na kontinuiranu edukaciju, druženje, po željama i na zdravstveni i SPA program u Aquareumalu koji je ponudio jako povoljne cijene boravka u komfornim apartmanima za učesnike simpozijuma, telef. 030 547 607, e-mail : prodaja@aquareumal.ba

Ovaj internacionalni Simpozijum je dio FDI programa kontinuirane edukacije i bodovaće se sa maksimalnim brojem bodova.

Dodatne informacije. Udruženje stomatologa FBIH, Bolnička 4a, Sarajevo,
e-mail medigan@bih.net.ba

UDRUŽENJE STOMATOLOGA FBIH
DENTAL ASSOCIATION OF
BOSNIA AND HERZEGOVINA
BOLNIČKA 4A, 71000 SARAJEVO
BOSNA I HERCEGOVINA
Tel / fax.: +387 33 21 42 59
www.usfbih.org.ba

PRIJAVA ZA ČLANSTVO
APPLICATION FORM MEMBERSHIP

IME I PREZIME _____

DATUM ROĐENJA _____

MJESTO I GODINA DIPLOMIRANJA _____

ZVANJE _____

ADRESA STANOVANJA (ulica I broj / mjesto / kanton) / TELEFON _____

_____

ADRESA ZAPOSLENJA / TELEFON _____

_____

E-MAIL ADRESA _____

❖ Uz prijavu priložiti i sliku

APEL

Doktorima stomatologije za učlanjenje / Membership/

Budite članovi Udruženja stomatologa Federacije Bosne i Hercegovine. To je društvo i udruženje kojem svojim zvanjem pripadate.

Članstvo u Udruženju vam donosi važne pogodnosti:

1. Dobijate iskaznicu sa slikom, logom FDI i dr. titulom prepoznatljivu kod nas i u svijetu
2. **Popust** od **10%** na sva putovanja u organizaciji USFBiH
3. Besplatan časopis Stomatologia BH 3 x godišnje
4. **Kotizacije** za simpozijume i kongrese u organizaciji **Udruženja stomatologa Federacije Bosne i Hercegovine umanjene za 30%**
5. Pismo preporuke za razne potrebe!
   (VISA, specijalizacija, usavršavanje i slično)

Članarina je **5,00** KM mjesečno ili **60,00** KM godišnje.

Članarinu možete tražiti da Vam se odbija preko platne liste u firmama i organizacijama gdje radite, a možete je uplatiti i u gotovom ili na račun:
Vakufska banka dd Sarajevo, Udruženje stomatologa FBiH
broj računa **1602000000046098** sa naznakom **" članarina za: (vaše ime)"**
Prijavu možete izvršiti na tel/fax + 387 33 21 42 59

Predsjednik USFBiH

Prof. dr. Mirjana Ganibegović - Selimović

Aquareumal d.o.o. Fojnica • Banjska 3 • 71270 Fojnica • Bosna i Hercegovina
PDV broj 236343500007 • identifikacioni broj 4236343500007
porezni broj 09561014 • registarski broj UF/I - 314/05 Sud u Novom Travniku
poslovna banka PBS 1011010000632864

UDRUŽENJE STOMATOLOGA FBiH
MEĐUNARODNI SIMPOZIJ STOMATOLOGA
71000 Sarajevo
e-mail: dent.asssociationbh@hotmail.com

Broj: 1679/14
Datum: 17.10.2014

Predmet: Ponuda usluga Aquareumal Fojnica

Poštovana,
Aquareumal Fojnica Vam želi ponuditi jedinstvenu uslugu aranžmana za učesnike međunarodnog sipmozija stomatologa u periodu 27. – 29.03.2015. godine sa smještajem u luksuznim apartmanima kako slijedi:

1. **Smještaj** u višekrevetnim apartmanima od 45 m² do 97 m² (jedna ili dvije spavaće sobe sa razdvojenim ležajevima, čajna kuhinja, dnevni boravak, LCD TV, telefon, jedno ili dva kupatila, toalet i balkon/bašta).

   Polupansion

   - **47,50 KM po osobi za jedno noćenje u višekrevetnom apartmanu**
   - **59,50 KM po osobi za jedno noćenje dvokrevetnom apartmanu**

   Puni pansion

   - **57,50 KM po osobi za jedno noćenje u višekrevetnom apartmanu**
   - **69,50 KM po osobi za jedno noćenje u dvokrevetnom apartmanu**

   Cijena za jednokreventni apartmanu se uvečava za 50% na cijenu u dvokrevetnom apartmanu.
   U cijenu je uključen PDV sa obračunatom boravišnom taksom i osiguranjem.

Rezervacije i uplate navedenih usluga treba izvšiti do 31. decembra 2014. godine na tel. 030 547 607; fax 030 547 610 ili putem e-maila: prodaja@aquareumal.ba.
Ukoliko se rezervacije i uplate izvrše nakon navedenog perioda, gore navedene cijene se uvećavaju za 20 %.
Doplata za svečanu večeru sa muzikom uživo u restoranu „Terra“ za sve koji koriste pansionske usluge iznosi 15,00 KM, a svi koji ne budu koristili pansionske usluge Aquareumala uplatu vrše na licu mjesta u iznosu od 30,00 KM.
U toku boravka u mogućnosti smo Vam organizovati posjetu muzeja franjevačkog samostana sa bogatom riznicom, šetnje obilježenim stazama u pratnji vodića, korištenje termalnog bazena u obliženjem objektu Reumal.
Usluge wellness centra (sauna, parna kupelj, masaže i termalni bazen) u našem kompleksu možete koristi tokom boravka sa popustom od 30 % ukoliko ste gosti Aquareumala po osnovu navedenih pansionskih usluga.
Tokom boravka možemo Vam organizovati fakultativnu posjetu Prokoškom jezeru sa domaćim autohtonim ručkom pored katuna, a sve ukoliko dozvole vremenski uslovi, po cijeni od 40,00 KM po osobi (u cijenu je uračunat prevoz do Prokoškog jezera i ručak (teletina ispod sača sa prilogom krompir i domaći sir)

Opcija ponude vrijedi do 31.12.2014.godine.
Za sve detaljnije informacije nalazimo Vam se na raspolaganju.

Srdačan pozdrav,

Bajraktarević Amir
Voditelj prodaje
Tel: 030 547 607
Fax 030 547 610
Mob:063 298 940

POZIV NA SARADNJU

Udruženje Stomatologa FBiH
Sarajevo, Bolnička 4
Redakcija časopisa Bilten STOMATOLOGIA BiH

Poštovani,
U prilici smo izvjestiti Vas da nudimo mogućnost predstavljanja vaše firme na stranicima časopisa Bilten STOMATOLOGIA BiH, koji izdaje Udruženje stomatologa FBiH.

Razloga zbog kojih bi ste trebali prezentirati Vašu firmu i njen program u ovom časopisu je više, a neki od njih su:

- Časopis se štampa u tiražu od 500 primjeraka,
- Časopis se dostavlja na adresu stomatologa putem pošte u cijeloj BiH
- Časopis se dostavlja u sve stomatološke asocijacije u Evropi, FDI članicama,
- Časopis se trajno arhivira u Nacionalnoj biblioteci BiH,
- Časopis se nalazi na web stranici Udruženja www.usfbig.org.ba

Predstaviti se možete po vlastitoj želji:

- Reklamom koju sami kreirate,
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Sve uplate možete izvršiti na račun Udruženje Stomatologa FBiH
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Citirani znanstveni radovi: 1. Wolff M, Corby P, Klaczany G, et al. *J Clin Dent*. 2013;24(Spec Iss A):A45-A54. 2. Data on file. Colgate-Palmolive Company. 3. Cantore R, Petrou I, Lavender S, et al. *J Clin Dent.* 2013;24(Spec Iss A):A32-A44. 4. Yin W, Hu DY, Fan X, et al. *J Clin Dent.* 2013;24(Spec Iss A):A15-A22. 5. Data on file. Colgate-Palmolive Company.

VIII INTERNATIONAL SYMPOSIUM OF DENTAL ASSOTIATION OF BOSNIA - HERZEGOVINA

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