

Vildana Džemidžić, Mediha Filipović, Alisa Tiro, Enita Nakaš, Samra Šalaga

Višestruki nalaz prekobrojnih zuba nevezan za složene sindrome: prikaz slučaja

Multiple Supernumerary Teeth not Associated with Complex Syndromes: a Case Report

Zavod za ortodonciju Stomatološkog fakulteta Sveučilišta u Sarajevu
Department of Orthodontics, Faculty of Dentistry University of Sarajevo

Sažetak

Prekobrojni zubi vrlo su rijedak nalaz često povezan s rascjepom usne i nepca ili sindromima poput Gardnerova te s kleidokranijalnom displazijom. U literaturi su opisani neki slučajevi. U ovom je radu predstavljena izolirana pojava višestrukih prekobrojnih zuba u objema čeljustima - kod jedne pacijentice i njezina brata. Lječnici su analizirali kliničke manifestacije te promjene i učinke nastale zbog prekobrojnih zuba. Predložili su i moguću terapiju te slučaj usporedili sa sličnim nalazima drugih autora.

Zaprmljen: 21. svibnja 2009.
Prihvaćen: 20. lipnja 2009.

Adresa za dopisivanje

Vildana Džemidžić
Sveučilište u Sarajevu
Stomatološki fakultet
Zavod za ortodonciju
Bolnička 4a, 71 000 Sarajevo, BiH
vdzemidzic@hotmail.com

Ključne riječi
Zub, prekobrojni

Uvod

Definicija prekobrojnih zuba ili hiperdoncije glasi: pretjeran broj zuba u odnosu prema formuli normalne denticije – 20 u mliječnoj i 32 u trajnoj (1).

Takvi zubi mogu se pojaviti u obje denticije, no češći su u trajnoj u kojoj variraju od 0,8% do 3,6% u usporedbi s 0,3% do 0,8% u mliječnoj denticiji (2-4). Kod mliječne denticije nema veće razlike u pojavi prekobrojnih zuba prema spolu (5), a u trajnoj rjeđe izniknu kod muškaraca negoli kod žena – omjer je 2,2:1 (6).

Točna se etiologija i dalje ne zna. Autori različitih hipoteza predlažu različite odgovore.

Dihotomija ili potpuno cijepanje zubnog zametka u dva dijela jedna je od hipoteza. Potvrđuju je rezultati ispitivanja na životinjama. Prekobrojni zubi na alveolarnom nastavku (kod njegova rascjepa) također pridonose tom stajalištu (2,5,7).

Introduction

Supernumerary teeth or hyperdontia are defined as the existence of an excessive number of teeth in relation to the normal dental formula – 20 in the deciduous dentition and 32 in the permanent dentition (1).

Supernumerary teeth may occur in both dentitions, but they are more frequently seen in the permanent dentition. The prevalence of supernumerary teeth in permanent dentition varies between 0,8% and 3,6% in comparison with 0,3% to 0,8% in the deciduous dentition (2-4). There is no significant sex distribution in occurrence of supernumerary teeth in deciduous dentition (5); but in permanent dentition they occur more frequently in males than females, in ratio 2,2:1, (6).

Exact etiology of supernumerary teeth still remains unclear. There are several theories which suggest their occurrence.

Iz literature je jasno da mnogi autori podupiru hipotezu o „hiperaktivnosti“ prema kojoj prekobrojni zubi nastaju zbog lokalne, neovisne i uvjetovane hiperaktivnosti dentalne lamine (3,5,8).

Nasljeđivanje bi također moglo utjecati na rast takvih zuba, jer se češće mogu pronaći kod rodbine djece s prekobrojnim zubima, nego li u općoj populaciji (1,5). Pojavu prekobrojnih zuba nadziru mnogobrojni geni na različitim lokusima, ali ponekad su i rezultat zasebnog djelovanja određenih gena, poput autosomno dominantnog nasljeđivanja (9).

Prema „filogenetskoj“ hipotezi odgovor na pitanje o etiologiji prekobrojnih zuba nalazi se u filogenetskom procesu atavizma (podsjetniku na daljnju evolucijsku prošlost). Hiperdoncija je rezultat inverzije ili atavizma, a takvi zubi povratak su stanja ili tipa naslijedenog od davnih predaka ili njihovo ponovno javljanje (5).

Treći kutnjaci rijetko su kada manjkali u primitivnoj denticiji, a često se mogao pronaći i četvrti kutnjak. Filogenetska evolucija smanjila je broj i veličinu zuba, pa bi prekobrojni pretkutnjaci mogli biti atavističko pojavljivanje trećeg ili četvrtog pretkutnjaka iz primitivne denticije. No, prekobrojni očnjaci opovrgavaju to stajalište, jer ne postoji ni jedna formula humane denticije koja bi uključivala dva očnjaka u svakome kvadrantu (2).

Incidenca prekobrojnih zuba može biti pojedinačna ili višestruka te u jednoj ili u objema čeljustima – i to eruptirana ili impaktirana.

Višestruke prekobrojne zube obično pridružujemo stanjima poput rascjepa usne ili nepca ili sindromima kao što je Gardnerov te kleidokranijalni displaziji (5,10). No, kod pojedinaca su takvi zubi bez pridruženih bolesti ili sindroma vrlo rijetki (8,10-14).

Prekobrojne zube možemo klasificirati prema morfološkoj i lokaciji. U mliječnoj denticiji njihova je morfološka uglavnom normalna ili konična, a u trajnoj se mogu pojaviti u različitim oblicima.

U literaturi se opisuju četiri morfološke vrste prekobrojnih zuba u trajnoj denticiji (7):

1. konična – najčešći oblik, često se javlja kao mezidens;
2. krvavičasta – na tim prekobrojnim zubima više je od jedne krvavice - takvi su zubi uglavnom na nepčanoj strani srednjih sjekutića;
3. dodatna – dodatni prekobrojni zubi duplikat su zubima iz normalnog niza i smješteni su na njegovu kraju, primjerice, dodatni kutnjaci i pretkutnjaci i
4. odontom – neki ga autori uvrštavaju među prekobrojne zube, ali to stajalište općenito nije pri-

The dichotomy or the complete tooth bud split into two parts is one of the theories of etiology of the supernumerary teeth. This hypothesis is supported by the animal experiments; also the occurrence of the supernumerary teeth on the alveolar process cleft goes to the contribution of this theory (2,5,7).

The “hyperactivity theory” is well supported theory in literature, which suggests that the supernumeraries are formed as a result of the local, independently conditioned hyperactivity of the dental lamina (3,5,8).

Heredity may also play a role in the occurrence of the supernumerary teeth, as the supernumeraries are more common in the relatives of the affected children, than in the general population (1,5). Occurrence of the supernumerary teeth is controlled by the numerous genes on the different locuses, but sometimes they are results of the separate genes effects, as autosomal dominant inheritance (9).

The “phylogenetic theory” relates to the phylogenetic process of atavism (evolutionary throwback). Hyperdontia is the result of the reverse phenomenon or atavism. Atavism is the return to or the reappearance of an ancestral condition or type (5). Third molar was rarely absent in the primitive dentition and fourth molar was often present. Phylogenetic evolution has resulted in a reduction in both the number and the size of human teeth and supernumerary premolars may be an atavistic appearance of the third or fourth premolars of the primitive dentition. But occurrence of supernumerary canine teeth does not contribute to this theory, because any human dentition formulas did not have two canine in each quadrant (2).

Occurrence of supernumerary teeth may be single or multiple, in one or both jaws, and erupted or impacted.

Multiple supernumerary teeth usually associate with conditions such as cleft lip and palate or some syndromes like Gardner's syndrome, Cleidocranial dysplasia.^{5,10} However, the occurrence of the multiple supernumerary teeth in individuals with no associated disease or syndrome is a rare phenomenon (8,10-14).

Classification of the supernumerary teeth can be made according to the morphology and location. In deciduous dentition the morphology of supernumerary teeth is usually normal or conical; but there is a greater variety of forms of supernumerary teeth presenting in the permanent dentition.

Four different morphological types of the supernumerary teeth have been described in literature (7):

hvaćeno - odontom se odnosi na bilo koju abnormalnu masu kalcificiranog zubnog tkiva.

Prekobrojni se zubi mogu naći u regiji bilo koje skupine zuba. *Rajab i Hamdan* (2002.) u svojem su istraživanju proučili 152 slučaja takvih zuba i istaknuli da se njih 90% javlja u području premaksile - 92,8% bilo je u predjelu središnjeg sjekutića. Ostalih 10% bilo je smješteno u regiji pretkutnjaka, očnjaka i kutnjaka te u području donjih središnjih sjekutića (6).

Konvencionalne rendgenske snimke najpouzdanije su u dijagnosticiranju prekobrojnih zuba i za planiranje terapije. Najčešće se koristimo sljedećima: ortopantomogramom te periapikalnom i okluzalnom snimkom (1,7). Kompjutorizirana tomografija (CT) nametnula se kao osnovna tehnika u procjeni prekobrojnih zuba, a posljednjih je godina kompjutorska tomografija koničnih zraka (CBTC) predložena kao zamjena za CT zbog niske doze zračenja i manje cijene (3).

Prekobrojni zubi mogu niknuti normalno ili mogu ostati impaktirani, no u oba slučaja mogu činiti kliničke poteškoće. Najčešći problemi s prekobrojnim zubima su: kasnije nicanje ili impakcija trajnih zuba, malpozicija, okluzalni problemi i resorpcija susjednih zuba, a mogu potaknuti čak i stvaranje ciste ili, pak, izrasti u nosnoj šupljini ili maksilarnom sinusu (1,3,7,8).

Oko 75% prekobrojnih zuba impaktirano je i asimptomatsko te se većina dijagnosticira slučajno tijekom analize rendgenograma (15).

Većinu se ekstrahira kako bi se izbjegle moguće komplikacije (3).

Kako vađenje nije uvijek najbolji izbor, zube se može nadzirati u sljedećim uvjetima:

- zadovoljava erupcija susjednih zuba;
- nema povezanih patoloških pojava i
- ekstrakcija bi mogla ugroziti vitalnost susjednih zuba.

Svrha ovoga rada jest opisati slučaj s prekobrojnim zubima kod brata i sestre te predstaviti izolirane nesindromatske pojave višestrukih prekobrojnih zuba kao rijetke fenomene.

1. Conical – It is the most common shape of the supernumerary teeth and usually presents as a mesiodens.

2. Tuberculate – This type of the supernumerary possesses more than one cusp or tubercle; the tuberculate supernumeraries are commonly located on the palatal aspect of the central incisors.

3. Supplemental – The supplemental supernumerary teeth refers to a duplication of teeth in normal series and is found at the end of a tooth series; for example supplemental molars and premolars.

4. Odontoma – Some authors lists odontoma in the category of supernumerary teeth, but this category is not universally accepted. The odontoma refers to any abnormal mass of calcificate dental tissue.

Supernumerary teeth can be found in the region of any group teeth. *Rajab and Hamdan* (2002) in their study of 152 cases of the supernumerary teeth reported that 90% of the supernumerary teeth occurred in the region of premaxilla, 92,8% of which were in the central incisor region. The other, 10% of the supernumeraries were located in the premolar, canine, molar and lower central incisor regions (6).

Conventional radiographs are the most reliable and definite method for the diagnosis of supernumerary teeth and planning their treatment. The most commonly used radiographs are orthopantomogram, periapical and occlusal radiographs. ^{1,7} Computed tomography (CT) has emerged as a basic technique to assess supernumerary teeth and cone-beam computed tomography (CBTC) has been suggested as a substitute for CT due to its low radiation dose and lower cost (3).

The supernumerary teeth can erupt normally or remain unerupted, but in either case their presence may lead to the clinical problems. Most frequently problems associated with the supernumeraries are: delayed eruption or impaction of the permanent teeth, tooth malposition, occlusal problems, resorption of the adjacent teeth, also the supernumerary teeth can cause cystic formation or they can erupt into the nasal cavity or in the maxillary sinus (1,3,7,8).

Approximately 75% of the supernumerary teeth are impacted and asymptomatic, and most of these teeth are diagnosed coincidentally during the radiographic examination (15).

Most supernumerary teeth are extracted in order to avoid possible complications (3). Extraction is not always the treatment of choice for supernumerary teeth and they may be monitored without removal where (7):

- satisfactory eruption of related teeth has occurred
- there is no associated pathology
- removal would prejudice the vitality of the related teeth.

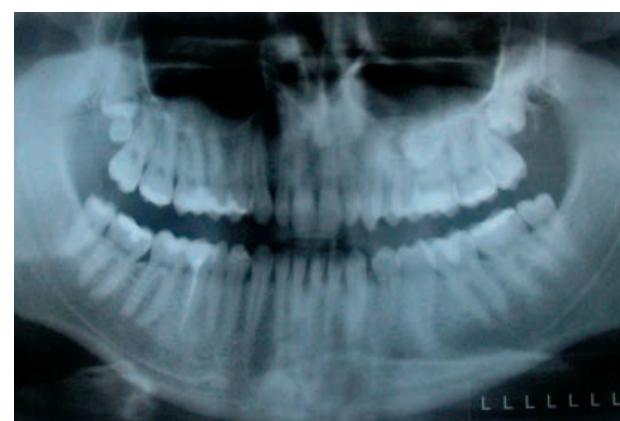
The aim of this report is to present an isolated nonsyndromic occurrence of the multiple supernumerary teeth in brother and sister, like one rare phenomenon.



Slika 1. Intraoralne fotografije pacijentice
Figure 1 Intraoral photographs of the female patient



Slika 2. Ortopanska snimka pacijentice
Figure 2 Orthopantomogram of the female patient



Slika 3. Ortopanska snimka pacijenta
Figure 3 Orthopantomogram of the male patient



Slika 4. Intraoralna snimka pacijenta
Figure 4 Intraoral photographs of the male patient

Prikaz slučaja

Dvadeset i osmogodišnja žena došla je u Zavod za ortodonciju Stomatološkog fakulteta u Sarajevu zbog teškoća s kasnjim nicanjem zuba u desnom predjelu kutnjaka mandibule.

Obiteljska anamneza nije upozoravala na opterenost, no stomatološka povijest bolesti upućivala je na prekobrojne zube i kod njezina oca i brata. Tijekom sustavnog i ekstraoralnog pregleda nisu bile otkrivene nikakve abnormalnosti. Intraoralnim pregledom bila je ustanovljena trajna denticija te zbog ekstrakcije manjak prvih trajnih kutnjaka na lijevoj strani maksile i mandibule.

U maksilarnom zubnom nizu na lijevoj je strani bio pronađen jedan prekobrojni Zub distalno trećem kutnjaku. Imao je morfološka obilježja kutnjaka, no bio je manji u usporedbi s ostalim zubima.

9 8 7 6 5 4 3 2 1	1 2 3 4 5 X 7 8 9
9 8 7 6 5 4 3 2 1	1 2 3 4 5 X 7 8

Stomatološkim pregledom ustanovljena je bila negativna incizalna od 2 mm, s pregrizom (overbite) također od 2 mm, uz pomak incizalne mediodsigitale prema lijevoj strani. Također je tijekom pregleda bukalnog segmenta okluzije potvrđen i odnos kutnjaka u klasi I (Slika 1.).

Analizom ortopantomograma otkriveni su impaktirani prekobrojni zubi u trima kvadrantima denticije. Dva su bila u regiji maksilarnih kutnjaka, a jedan u desnoj mandibularnoj. Svi prekobrojni zubi distomolari smješteni su bili posteriorno trećim kutnjacima. Prekobrojni zubi u mandibularnoj regiji kutnjaka bili su horizontalno orijentirani (Slika 2.).

Nakon pregleda i analize ortopantograma pacijentica je poslana u Zavod za oralnu kirurgiju na ekstrakciju prekobrojnog zuba u regiji desnih mandibularnih kutnjaka. Zubi u maksilarnoj regiji kutnjaka nisu zbog prekobrojnih zuba bili vezani za bol, resorpciju susjednih zuba, ni za neuspješno nicanje, te nije bila propisana nikakva terapija. Odlučeno je da pacijentica treba doći na rendgensku kontrolu za šest mjeseci.

Analizom ortopana pacijentičina brata, shvatilo se da taj muškarac u dobi 26 godina ima impaktirane prekobrojne zube u maksilarnoj regiji kutnjaka – dva su bila na desnoj strani, posteriorno trećem kutnjaku (distomolari). Jedan je bio na lijevoj strani iznad prvog kutnjaka, a drugi posteriorno lijevom trećem kutnjaku (distomolari). U stomatološkoj povijesti bolesti bila je spomenuta ekstrakcija prekobrojnog zuba u regiji maksilarnih središnjih sjekutica (meziodens) (Slika 3.).

Case report

A 28-year old female was referred to the Department of Orthodontics, at the School of Dentistry in Sarajevo, due to the problem with delayed tooth eruption in the mandibular right molar region.

The family's medical history was non contributory, but the dental history indicated the presence of supernumerary teeth in her brother and father.

General physical and extraoral examination did not show any abnormality.

An intraoral examination revealed a presence of permanent dentition, but on the left side in the maxillary and also in the mandibular dental arch were extracted the first permanent molars.

In maxillary dental arch, on the left side, was present one supernumerary tooth, distal to the third molar. The supernumerary tooth had a similar morphology like molar, but it was smaller when compared to the other teeth.

9 8 7 6 5 4 3 2 1	1 2 3 4 5 X 7 8 9
9 8 7 6 5 4 3 2 1	1 2 3 4 5 X 7 8

The examination of the teeth in occlusion revealed 2 mm of overjet, there is 2 mm overbite and the mandibular incisor midline has been moved on the left side. Also, the examination in the buccal segment occlusion revealed a Class I molar relationship, (Figure 1).

The analyses of the orthopantomogram revealed the presence of the impacted supernumerary teeth in three quadrants. Two were present in the maxillary molar region, and one in the mandibular right molar region. All the supernumerary teeth were distomolars located just posterior to the third molars. The supernumerary teeth in the mandibular molar region were in horizontal position, (Figure 2).

After the examination and analyses of the orthopantomogram, the patient was sent to the Oral surgery department to extract the supernumerary tooth in the mandibular right molar region. Since the impacted supernumerary teeth located in the maxillary molar region were not associated with pain, resorption of the adjacent teeth or failure of the eruption, the treatment was not necessary. It was decided to observe the teeth and to radiographically review the patient after six months.

The analyses of the orthopantomogram of the patient's brother, a 26-year old male, revealed the presence of the impacted supernumerary teeth in the maxillary molar region – two supernumerary teeth were located on the right side, posterior to the third molar (distomolars); one was on the left side above

U sistematskim i ekstraoralnim pregledima nisu bile ustanovljene nikakve abnormalnosti. Intraoralnim pregledom bila je procijenjena trajna denticija i pregledani treći kutnjaci. U desnoj mandibularnoj premolarnoj regiji pronađen je jedan prekobrojni Zub između prvoga i drugoga pretkutnjaka. Morfološki je bio koničan i manjih dimenzija.

10 9 8 7 6 5 4 3 2 1 X 1 2 3 4 5 6 6 7 8 9
8 7 6 5 4 4 3 2 1 1 2 3 4 5 6 7 8

Pregledom okluzije bio je ustanovljen horizontalni prijeklop od 2 mm i vertikalni također od 2 mm te pomak incizalne središnje linije prema desnoj strani. Tada je evidentiran i odnos molara u klasi II,(Slika 4.).

Nije bilo moguće pregledati i oca, jer mu je prebivalište bilo jako udaljeno.

the first molar and one was located posterior to the left third molar (distomolar). Also, he had a dental history of the extraction of supernumerary tooth in the region of maxillary central incisors, (Figure 3).

General physical and extraoral examination did not show any abnormality.

An intraoral examination revealed a presence of the permanent dentition, including the third molars. In the mandibular premolar region on the right side, one supernumerary tooth was present, between the first and the second premolar. The supernumerary tooth was conical and smaller in size.

10 9 8 7 6 5 4 3 2 1 X 1 2 3 4 5 6 6 7 8 9
8 7 6 5 4 4 3 2 1 1 2 3 4 5 6 7 8

The examination of the teeth in occlusion revealed 2 mm of overjet, there was 2 mm of overbite and the mandibular incisor midline has been moved to the right side. Also, the examination in the buccal segment occlusion revealed a Class II molar relationship. (Figure 4)

Since the supernumerary teeth did not cause any disturbance to the patient, it was decided to observe the teeth and to radiographically review the patient after six months.

The examination of father was not possible because of his absence. He lived in another town.

Rasprava

Etiologija prekobrojnih zuba nije potpuno jasna i postoji nekoliko hipoteza o zagonetki rascjepa zubnog zametka (7). Evo nekih: lokalna i neovisna hiperaktivnost dental lamina (3,5,8), filogenetska regresija prema antopoidima čija je dentalna formula imala više zuba te nasljeđivanje (1,5). Prekobrojni zubi češći su kod pacijenata iz obitelji u kojima već postoji ta pojava, kao što je dokazano i u ovom radu. U literaturi nema podataka prema kojima bi se moglo zaključiti da u određenim slučajevima kod nicanja prekobrojnih zuba nema pridruženih sustavnih poremećaja ili sindroma (8,10-14). Takvi su nalazi u skladu s ovim istraživanjem.

U prikazu našeg slučaja dijagnosticirano je devet prekobrojnih zuba, uključujući i jedan ranije ekstrahirani. Sedam je bilo smješteno u predjelu kutnjaka posteriorno trećem kutnjaku (osim jednoga koji je bio iznad prvog kutnjaka i u lijevoj maksilarnoj regiji). Ovaj je nalaz u skladu s opisom slučajeva koje su predstavili Diaz i sur. (2009.), Gündüz i Muğlali (2007.) i Kokten i sur. (2003.), (1,11,12). Diaz (2009.) ističe višestruki nalaz prekobrojnih zuba u maksili, distalno desnom trećem kutnjaku kod

Discussion

The etiology of supernumerary teeth is not completely understood, and several theories have been proposed to try to explain their presence – dental germ dichotomy (7), local and independent hyperactivity of dental lamina (3,5,8), the phylogenetic theory as a regression to the anthropoids whose dental formula had more teeth¹ and heredity (1,5). The supernumerary teeth are more likely to be present in patients whose relatives possessed supernumerary teeth, as it has been shown in the present case.

In the reviewing of the literature some cases of familial occurrence of multiple supernumerary teeth were found without any associated systemic disorders or syndromes (8,10-14). These findings are in the accordance with our report.

In our case a total of the 9 supernumerary teeth were diagnosed, including one supernumerary teeth earlier extracted . Of these, 7 supernumerary teeth were localized in the molar region, posterior to the third molar (except the one which was above the first molar, in the maxillary left region) – this finding is in accordance with reports of Diaz et al. (2009), Gündüz and Muğlali (2007.) and Kokten et

desnog očnjaka i lijevog premolara te u premolarnoj regiji mandibule¹. Gündüz i Muğlali (2007.) je također opisao slučaj pacijenta bez sindroma, ali s prekobrojnim Zubima u maksilarnoj anteriornoj regiji (11). Kokten i sur. (2003.) je raščlanio dva slučaja obostranih (bilateralnih) impaktiranih četvrtih i petih kutnjaka u maksili. Bili su to distomolari smješteni posteriorno gornjim trećim kutnjacima.¹² Jedan od prekobrojnih zuba bio je u mandibularnoj premolarnoj regiji na desnoj strani, između prvega i drugoga premolara, a ekstrahirani prekobrojni Zub nalazio se u regiji gornjih središnjih sjekutića. Naši su nalazi u skladu sa sličnim opisima Diaz i sur. (2009.), Orhana i sur. (2005.), Arathi i sur. (2005.), Kalre i sur. (2005.) i Moorea i sur. (2002.), (1,8,10,13,14).

Kod konačne dijagnoze jednostrukе ili višestruke pojave prekobrojnih zuba potrebno je vrlo pozorno planirati terapiju. Istimemo da su za to vrlo važni klinički i rendgenski pregledi te da terapija može varirati od jednostavnih ekstrakcija do onih nakon kojih slijedi ortodontska terapija kako bi se postigla pravilna okluzija (1).

Terapije prekobrojnih zuba često su različite. Važno je procijeniti položaj prekobrojnog zuba, mogućnost nicanja i rizik prema susjednim strukturama te uzeti u obzir opasnosti i prednosti kirurškog zahvata. Ako prekobrojni Zub čini poteškoće, preporučuje se ekstrakcija (7).

Asimptomatske prekobrojne zube često se slučajno detektira na rendgenskoj snimci te ih se tako i dijagnosticira. Tada se izbjegava ekstrakcija kako bi se izbjegle moguće komplikacije tijekom kirurškog zahvata (ozljeda susjednih struktura ili zuba), (14). Kod asimptomatskih slučajeva nastoji se pratiti Zub (bez ekstrakcije) te se preporučuje povremena kontrola (re-call), kako bi se uočile moguće štetne posljedice (nagli poticaj za nicanje), (11).

Ljudima s prekobrojnim Zubima potreban je multidisciplinarni pristup. Vođenje pacijenata s takvom denticijom uključuje komprehenzivni prijedlog terapije, što uključuje primjenu ortodoncije, pedodoncije i oralnu kirurgiju (3). Važno je procijeniti rizike i prednosti odabrane terapije.

al. (2003.), (1,11,12). Diaz (2009.) reported a case of multiple supernumerary teeth in the maxilla located distally to the right third molar, the right canine and left premolar region, and in the mandibular premolar region (1). Gündüz and Muğlali (2007) also presented a case of a non-syndrome male patient with multiple supernumerary teeth which were located in the maxillary right molar region, premolar regions and in the maxillary anterior region (11). Kokten et al. (2003) described two cases of impacted bilateral maxillary fourth and fifth molars. They were distomolars located just posterior to the upper third molars (12).

One of the supernumerary tooth was localized in the mandibular premolar region on the right side, between the first and the second premolar; and one of the supernumerary tooth, in the region of the maxillary central incisors, was extracted. Our findings are in the accordance with similar reports by Diaz et al. (2009), Orhan et al. (2005), Arathi et al. (2005), Kalra et al. (2005) and Moore et al. (2002), (1,8,10,13,14).

Whenever the supernumerary teeth are diagnosed, single or multiple, a decision regarding to the appropriate management should be made carefully. It is difficult to establish an ideal treatment for the cases of multiple supernumerary teeth. The clinical and radiographic exam is of the vital importance to carry out a good treatment plan which can vary from simple extractions or extractions followed by orthodontic treatment to obtain a correct occlusion (1).

The treatment of supernumerary teeth is due to change from one case to another. It is important to evaluate the position of the supernumerary tooth, the possibility of eruption and the risk to the adjacent structures, taking in consideration the risk and benefit of the surgery. If the supernumerary tooth has caused some problems, the extraction is recommended (7).

But sometimes, the supernumerary teeth are asymptomatic and most of these teeth are diagnosed coincidentally during the radiographic examination, avoiding their removal in those cases, because of the possible complications during the surgical removal of the teeth (damage of the adjacent structures or teeth), (14). In that case this is indication for monitoring (without supernumerary tooth removal), and the recommendation is periodical position control of the supernumerary teeth, to recognize possible damage consequences (11).

The approach to the patients with supernumerary teeth must be multidisciplinary. The management of the supernumerary teeth should form the part of a

Zaključci

Terapija ovisi o vrsti i položaju prekobrojnog zuba i neželjenim posljedicama koje bi mogao prouzročiti na susjednim zubima. Pacijentu se pristupa multidisciplinarno, što jamči adekvatnu dijagnozu i prijedlog terapije.

comprehensive treatment plan in cooperation with orthodontics, pediatric dentistry, oral surgery (3). It is important to appraise the risks and benefits that the institution of a certain treatment must bring on.

Conclusion

A treatment depends on the type and position of the supernumerary tooth and on its undesirable effects on the adjacent teeth; Multidisciplinary approach provides adequate diagnosis and treatment plan to the patient.

Abstract

Occurrence of the supernumerary teeth is a very rare phenomenon and it is usually associated with conditions as cleft lip and palate or some syndromes like Gardner's syndrome, Cleidocranial dysplasia. In the literature reviewing some isolated cases of the multiple supernumerary teeth were described. This report presents a case of the isolated occurrence of multiple supernumerary teeth located in both jaws, in a female patient and her brother. Clinical manifestations, changes and effects which were caused by the supernumerary teeth, and eventually the treatment plan, were discussed and compared to the similar findings of the other authors.

Received: May 21, 2009

Accepted: June 20, 2009

Address for correspondence

Vildana Džemidžić
University of Sarajevo,
Faculty of Dentistry
Department of Orthodontics
Boilnička 4a, 71 000 Sarajevo
Bosnia and Herzegovina
vdzemidzic@hotmail.com

Key words

Tooth, Supernumerary

References

- Díaz A, Orozco J, Fonseca M. Multiple hyperodontia: report of a case with 17 supernumerary teeth with non syndromic association. *Med Oral Patol Oral Cir Bucal.* 2009;14(5):E229-31.
- Marković M. Biološka priroda ortodoncije. Beograd: Ortodontska sekcija Srbije; 1982.
- Ferrés-Padró E, Prats-Armengol J, Ferrés-Amat E. A descriptive study of 113 unerupted supernumerary teeth in 79 pediatric patients in Barcelona. *Med Oral Patol Oral Cir Bucal.* 2009;14(3):E146-52.
- Netto HD, Assis NM, Nogueira B, Chaves MG, Vitral RW. Supernumerary teeth at primary and permanent dentition. *Braz J Oral Sci.* 2006;5(18):1112-8.
- Fazliah SN. Supernumerary tooth: report of a case. *Arch Orofac Sci.* 2007;2:54-8.
- Rajab LD, Hamdan MA. Supernumerary teeth: review of the literature and a survey of 152 cases. *Int J Paediatr Dent.* 2002;12(4):244-54.
- Garvey MT, Barry HJ, Blake M. Supernumerary teeth--an overview of classification, diagnosis and management. *J Can Dent Assoc.* 1999;65(11):612-6.
- Orhan AI, Ozer L, Orhan K. Familial occurrence of nonsyndromal multiple supernumerary teeth. A rare condition. *Angle Orthod.* 2006;76(5):891-7.
- Škrinjarić I., Orofacijana genetika. Zagreb: Školska knjiga; 2006.
- Arathi R, Ashwini R. Supernumerary teeth: A case report. *J Indian Soc Pedod Prev Dent.* 2005;23(2):103-5.
- Gündüz K, Muğlali M. Non-syndrome multiple supernumerary teeth: A case report. *J Contemp Dent Pract.* 2007;8(4):81-7.
- Kokten G, Balcioglu H, Buyukertan M. Supernumerary fourth and fifth molars: a report of two cases. *J Contemp Dent Pract.* 2003;4(4):67-76.
- Kalra N, Chaudhary S, Sanghi S. Non-syndrome multiple supplemental supernumerary teeth. *J Indian Soc Pedod Prev Dent.* 2005;23(1):46-8.
- Moore SR, Wilson DF, Kibble J. Sequential development of multiple supernumerary teeth in the mandibular premolar region -- a radiographic case report. *Int J Paediatr Dent.* 2002;12(2):143-5.
- Açıkgoz A, Açıkgoz G, Tunga U, Otan F. Characteristics and prevalence of non-syndrome multiple supernumerary teeth: a retrospective study. *Dentomaxillofac Radiol.* 2006;35(3):185-90.