

Kompleksni odontom udružen sa impaktiranim donjim umnjakom

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Complex odontoma associated with an impacted molar

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CASE REPORTS****KRATAK SADRŽAJ**

Odontomi su najčešći odontogeni tumori. Uglavnom su asimptomatski i otkrivaju se slučajno posle radiografskog pregleda vilca. Najčešće su lokalizovani u frontalnoj regiji maksile. U ovom radu prikazan je kompleksni odontom udružen sa impaktiranim donjim umnjakom sa leve strane kod četrnaestogodišnje devojčice. U lokalnoj anesteziji, hirurški su izvađeni impaktirani donji umnjak i tumor u celosti. Histopatološki nalaz potvrdio je dijagnozu kompleksnog odontoma.

Ključne reči: odontom, odontogeni tumor**SUMMARY**

Odontomas are the most common odontogenic tumors. They are usually asymptomatic and could be detected accidentally after an X-ray examination of the jaw. The most frequent location of odontomas is maxillary front. The case reported here is a complex odontoma found in the left mandible, associated with an impacted third molar of a 14-year-old girl. Under local anesthesia, both the impacted third molar and odontoma were surgically extracted. Histopathological examination confirmed the diagnosis of complex odontoma.

Keywords: odontoma, odontogenic tumors

Odontomi su najčešći odontogeni tumori koji se sastoje od gleđi i dentina sa različitom količinom pulpe i cementa. Ne predstavljaju prave neoplazme, već razvojne anomalije (hamartome).¹ U literaturi su klasifikovani na: višedelno složene ili komponovane odontome (compound composite odontoma) i jedinstveno složene ili kompleksne odontome (complex composite odontoma).²

Komponovani odontom se sastoje od velikog broja zubolikih struktura, dok je kompleksni odontom građen od velike količine gleđi i dentina i ne pokazuje anatomsku sličnost sa zubima.

Odontomas are the most common odontogenic tumors which are composed of enamel and dentin with various amounts of pulp and cement. They do not represent genuine tumor, but developmental anomalies (hamartomas).¹

In the current literature, they are classified as compound composite odontoma (consisting of many parts) and complex composite odontoma (parts united in their complexity).²

Compound composite odontoma consists of myriad of tooth-like structures, while the complex composite odontoma is formed of great quantity of enamel and dentin and it does not indicate any anatomical similarity to teeth.

Na radiogramu se komponovani odontom vidi kao više malih zasenčenja sličnih zubima koja su od okolne kosti ograničena zonom rasvetljenja. Kompleksni odontom se manifestuje kao jasno ograničeno zasenčenje okruženo uskim, radiolucentnim rubom. Komponovani i kompleksni odontomi se javljaju podjednako često, s tim što su komponovani odontomi najčešće lokalizovani u frontalnom predelu gornje vilice i udruženi su sa impaktiranim zubima, dok se kompleksni odontomi češće javljaju u bočnoj regiji obe vilice, obično umesto zuba koji nedostaje.

Odontomi su podjednako zastupljeni kod pacijenata oba pola, a najčešće se dijagnostikuju u drugoj i trećoj deceniji života. Spadaju u najčešće odontogene tumore. Uglavnom se razvijaju bez simptoma.

Cilj ovog rada je bio da se prikaže retka lokalizacija kompleksnog odontoma udruženog sa impaktiranim donjim umnjakomsa leve strane, kod četrnaestogodišnje devojčice

Prikaz slučaja

Pacijent M.S., (14 g.) se javila na Kliniku za oralnu hirurgiju Stomatološkog fakulteta u Beogradu zbog hirurškog vađenja impaktiranih umnjaka iz ortodontskih razloga. Pacijentkinja nije imala nikakve tegobe.

Na učinjenom oropantomogramu, iznad krune impaktiranog levog donjeg umnjaka, uočeno je jasno ograničeno zasenčenje, intenziteta sličnog okolnim zubnim strukturama, oivičeno zonom linijskog rasvetljenja. (sl.br.1)



On an X-ray, compound odontoma is seen as radiopaque mass similar to the teeth bordered with the neighboring bone by a radiolucent zone. Complex composite odontoma is manifested as a radiopaque mass with well-defined borders surrounded by a thin radiolucent edge.

Compound and complex odontomas frequently occur. The difference is that compound odontomas are situated more often in the frontal part of the maxilla and associated with impacted teeth, while complex ones usually appear in the lateral region of both upper and lower jaws, usually instead of a tooth that is missing.

Odontomas are equally present among patients of both sexes, and more often they are diagnosed in the second or third decade in life. They belong to the commonest odontogenic tumors. Mainly they develop without any symptoms.

The aim of this study was to show a rare localization of the complex odontoma associated with an impacted molar in the left mandible of a 14-year-old girl.

Case report

A female patient M.S. (14 years old) visited the Clinic for Oral Surgery, School of Dentistry in Belgrade for surgical extraction of impacted molars for orthodontic reasons. The patient did not have any disorders.

Orthopantomogram was done and above the crown of the impacted molar in the left mandible, a distinct radiopaque mass was noticed, with an intensity similar to neighboring dental structures and surrounded by a radiolucent zone. (Figure 1)

Slika 1. Preoperativni radiogram pokazuje jasno ograničeno zasenčenje lokalizovano iznad krunice impaktiranog donjeg levog umnjaka.

Figure 1. Preoperative orthopantomogram showing a radiopaque mass with well-defined borders, surrounded by a radiolucent zone above the impacted third molar on the left side of mandible.

Pacijentu je predočeno da je uz ekstrakciju umnjaka neophodno ukloniti i tumorsku formaciju koja je uočena iznad krune zuba koji je potrebno hirurški izvaditi.

Hirurška intervencija je urađena u lokalnoj anesteziji (Septanest sa adrenalinom 1/100000; Septodont, Francuska). Skalpelom br.15 napravljen je "envelope" rez i odignut mukoperiostalni režanj. Karbidnim borerom, uz obilnu irigaciju fiziološkim rastvorom, uklonjen je tanak sloj kosti, nakon čega se ukazao jasno ograničen tumor obavijen debelom vezivno-tkivnom kapsulom. (sl. br.2)



It was presented to the patient that along with the extraction of the molar it was necessary to remove the tumor formation which had been perceived above the crown of the tooth which had to be surgically extracted.

Surgery was done under a local anesthesia (Septanaest with adrenaline 1/100000; Septodont, France). An "envelope" incision was done using a #15 lancet and a mucoperiostal lobe was lifted. Using a carbide bur and under ample saline irrigation, a thin bone layer was removed, after and the circumscribed tumor covered in fibrous capsule was revealed. (Figure 2)

Slika 2. Intraoperativni izgled odontoma. Posle uklanjanja tankog sloja kosti uočena je vezivno-tkivna kapsula koja obavija odontom i ograničava ga od okolne kosti.

Figure 2. Odontoma - intraoperative. After a thin overlying bone was removed, the circumscribed tumor covered with a fibrous capsule was revealed.

Da bi se izbeglo uklanjanje veće količine kosti, tumor je fisurnim svrdlom isečen na nekoliko delova, a potom su fragmenti izvađeni polugom. Nakon uklanjanja tumora u celosti, u istom aktu izvađen je i impaktirani donji umnjak. (sl.br.3, br.4)

Ivice kosti su zaobljene, a rana isprana fiziološkim rastvorom i ušivena pojedinačnim šavovima. Postoperativni tok je protekao uredno. Histopatološki nalaz je potvrdio dijagnozu kompleksnog odontoma.

In order to avoid the removal of a significant amount of bone structure, the tumor was divided into several parts using a fissure bur, and the fragments were extracted using a lever. After the total tumor extraction, the impacted molar in the left mandible was extracted simultaneously (Figures 3 and 4)

Edges of the bones were rounded and the wound was rinsed with saline and sutured with single stitches. The postoperative course went neatly. The histopathological report confirmed the diagnosis of complex odontoma.



Slika 3. Izgled operativnog polja posle uklanjanja odontoma I umnjaka.
Figure 3. Operative field after tumor extirpation and tooth extraction.



Slika 4. Izvađen impaktirani umnjak u celini I delovi separiranog odontoma.
Figure 4. Third molar and separated odontoma after surgical extraction.

Diskusija

Odontomi su najčešće lokalizovani u frontalnom predelu maksile, zatim u frontalnom predelu mandibule, a vrlo retko u bočnoj regiji mandibule. Najmanja zastuplje-

Discussion

Odontomas are most frequently localized in the frontal part of maxilla, followed by the frontal part of mandible, and rarely in the lateral region of mandible. The

nost je u bočnoj regiji maksile. Preko 62% odontoma se nalaze u prednjem segmentu obe vilice.³

U periodu od 2003. do 2006. godine na Klinici za oralnu hirurgiju Stomatološkog fakulteta u Beogradu, 7004 pacijenta bilo je podvrgnuto različitim hirurškim procedurama, a samo kod 15 pacijenata izvršeno je hirurško uklanjanje odontoma. Odontomi su uglavnom bili lokalizovani u frontalnoj regiji obe vilice (13), a samo jedan u bočnom segmentu gornje i jedan u bočnom segmentu donje vilice. Interesantno je da je, odontom prikazan u ovom radu, bio jedini registrovani odontom lokalizovan u molarnoj regiji donje vilice. (tabela br.1)

Tabela 1. Lokalizacija odontoma

	Frontalna regija	Bočna regija
Maksila	7	1
Mandibula	6	1

U ovom radu prikazan je slučaj kompleksnog odontoma lokalizovanog iznad krunice impaktiranog donjeg umnjaka sa leve strane. Dijagnostikovao je slučajno, na radiogramu, koji je napravljen u sklopu ortodontskog tretmana 14-godišnjeg pacijenta. Odontomi se uglavnom rano dijagnostikuju, već u dečjem uzrastu, jer uzrokuju ortodontske anomalije. Najčešće se otkrivaju na radiogramu napravljenom da bi se utvrdio uzrok nedostatka ili malpozicije pojedinih zuba u vilicama. Iz istih razloga preporučuje se njihovo rano uklanjanje kako bi se omogućilo pravilno postavljanje zuba u zubni niz. Terapija odontoma je hirurška. Može biti udružena sa ortodontskim tretmanom zuba čiju je retenciju ili malpoziciju uslovlilo prisustvo odontoma.^{4,5} Ukoliko je to neizvodljivo pristupa se uklanjanju stalnog zuba istovremeno sa uklanjanjem odontoma. U prikazanom slučaju bilo je indikovano hirurško vađenje impaktiranog donjeg umnjaka u cilju prevencije nastanka tercijarne teskobe, pa je u istom aktu izvršena i uklanjanje odontoma.

Prilikom uklanjanja patoloških promena u retromolarnoj regiji donje vilice, u dečjem uzrastu, treba voditi računa da se ne uklanja veća količina kosti na prednjoj ivici vilične grane, jer bi na taj način moglo doći do povrede centara rasta vilice. Iz tog razloga je u ovom slučaju odontom isečen u više delova i izvađen u fragmentima. Samim tim obezbeđena je brža i potpunija regeneracija kosti u ovoj regiji.

Ukoliko nije indikovano vađenje stalnog zuba koji je udružen sa odontomom mora se voditi računa, da u toku hirurške intervencije, ne dođe do njegove povrede ili povrede susednih zuba ili njihove slučajne ekstrakcije. Naime, ponekad je vrlo teško intraoperativno razlikovati stalni zub od odontoma, pa je iz tog razloga jako važno preoperativno, radiografski, precizno pozicionirati odontom i odrediti njegov odnos sa susednim zubima. Primeenom različitih radiografskih tehnika moguće je sa velikom

smallest incidence is in the lateral region of maxilla. More than 62% odontomas are situated in the frontal part of both jaws.³

Between 2003. and 2006. at the Clinic for Oral Surgery, School of Dentistry in Belgrade, 7004 patients were subjected to various surgical procedures, out of which only 15 patients had odontomas surgically extracted. Odontomas were most frequently localized in the frontal region of both jaws (13), and only one in the lateral part of mandible. It is interesting that odontoma shown in this study, was the only one registered as localized in the molar region of mandible (Table 1)

Table 1. Odontoma localization

	Frontal region	Lateral region
Maxilla	7	1
Mandible	6	1

The case of the complex odontoma localized above the crown of the impacted molar in the left mandible is shown in this paper. It was diagnosed accidentally on an X-ray which was done during orthodontic treatment of the 14-year-old patient. Odontomas are usually diagnosed at an early age because they cause orthodontic anomalies. They are most frequently revealed on X-rays taken to establish the cause of absence or malposition of teeth in the jaw. For the same reasons, their early extraction is recommended in order to enable the correct setting of teeth into the dental arch. The treatment of odontomas is surgical. It can be associated with the orthodontic treatment of teeth whose retention or malposition was influenced by the presence of odontomas.^{4,5} If that is impossible, the permanent tooth is extracted simultaneously with odontoma. In the present case, the surgical extraction was indicated in order to prevent tertiary anxiety, so the extraction of odontoma was done in the same act. During the removal of pathological structures in the mandibular retromolar region in an early age, care should be taken to preserve bone structures on the frontal edge of the mandibular ramus, because it might impair jaw development. For that reason, odontoma in this case was cut in several parts and extracted in fragments. In that sense, fast and thorough regeneration of the bone is provided in this region.

If the extraction of the permanent tooth associated with odontoma was not indicated, one should take care during the surgery to avoid its damage or that the neighboring teeth are not damaged or extracted. It is sometimes very difficult to distinguish a permanent tooth from odontoma, and it is crucial to position the odontoma accurately using the X-ray before the surgery and determine its relation to the neighboring teeth. Using dif-

preciznošću odrediti njegovu tačnu lokalizaciju. Kada je u pitanju komponovani odontom, treba voditi računa da se operativno polje pažljivo pregleda posle uklanjanja tumora, i da ne zaostane neki od zubića kako bi se izbegla dodatna hirurška intervencija. Po potrebi se može napraviti kontrolni radiogram u toku operacije. Prognoza je uvek dobra jer ovi tumori ne recidiviraju.

ferent radiographic techniques, it is possible to determine the precise position of the tumor. With compound odontomas, the operating field should be carefully inspected after tumor extraction, in order not to leave dental remnants. If needed, a control X-ray should be taken during the surgery. The prognosis is always good since these tumors do not tend to recide.

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