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Centralni mukoepidermoidni karcinom niskog stupnja ili žljezdana odontogena cista: prikaz zanimljivog slučaja

Central Low-Grade Mucoepidermoid Carcinoma or Glandular Odontogenic Cyst: Report of an Interesting Case

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Sažetak

Mukoepidermoidni karcinom rijedak je u čeljusti i histološki je jako varijabilan. Točna patogeneza nije poznata - hipoteza je da epitelna ovojnica odontogene ciste ima najvažniju zadaću. Budući da je malo oralnih patologa i kliničara vidjelo tu leziju, potrebno je odrediti kliničko-patološke parametre i kriterije za postavljanje dijagnoze. U ovom radu izvještavamo o centralnom mukoepidermoidnom karcinomu niskog stupnja kod 46-godišnjeg muškarca te opisujemo kliničko-patološka svojstva i raspravljamo o sličnosti sa žljezdanom odontogenom cistom (GOC-om). Svjetska zdravstvena organizacija proglasila je GOC neovisnim patološkim entitetom i klasificirala ga kao razvojnu odontogenu epitelnu cistu.

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Ključne riječi

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Uvod

Mukoepidermoidni karcinom (MEC) u čeljusti vrlo je rijedak i čini dva do tri posto dokumentiranih mucoepidermoidnih karcinoma (1,2). Smatra se da ta lezija ima nizak maligni potencijal, osim u rijetkim slučajevima regionalnih i udaljenih metastaza kod primjene manje agresivne kirurške terapije (2). Centralni MEC ima i vrlo slična klinička te histološka svojstva kao i GOC (3,4,5).

Žljezdana odontogena cista (GOC) rijetka je i najprije su je opisali Gardner i njegovi suradnici (6). Kontroverzije u vezi s nazivljem, podrijetlom i histopatološkim svojstvima postoje još od prvih opisa Padayachee i Van Wyka koji su tu leziju nazvali Sialo-odontogenom cistom. GOC je razmjerno rijedak. U britanskoj literaturi opisano je nešto više od 50 slučajeva (7,8,9). Nedavno su se Kaplan i njegovi kolege koristili molekularnim biljezima kao pomoći u postavljanju dijagnoze GOC-a u odnosu prema drugim lezijama, kao što je mucoepidermoidni karcinom (MEC) i radikularna cista (9).

Mi izvještavamo o slučaju centralnoga MEC-a niskog stupnja, opisujemo kliničko-patološka svojstva i etio-patogenezu te raspravljamo o njegovoj sličnosti s GOC-om. Budući da su obje lezije histološki dosta različite, no često je teško razlučiti žljezdanu odontogenu cistu od intraoseanog, uglavnom cističnog (niskog stupnja) mucoepidermoidnog karcinoma, to može zahtijevati detaljnu mikroskopsku analizu nekoliko rezova kirurški bioptiranog uzorka tkiva. U ovom izvještaju, pacijent je bio bez simptoma bolesti dvije godine i nije se više pojavila, a nije bilo ni metastaza - kako lokalnih tako i udaljenih.

Prikaz slučaja

Pacijent je bio u dobi od 46 godina i imao je već četiri tjedna jednostranu asimptomatsku oteklinu na donjoj desnoj stražnjoj regiji. Lezija je bila mala i posljednja četiri mjeseca nije rasla. Dvije godine prije toga bio je podvrgnut terapiji ekstrakcije svih molara i enukleaciji ciste na istom području, ali nažalost o tome nema potankosti. Ekstraoralni pregled lezije upozorio je na difuznu, tvrdu koštanu oteklinu koja uključuje ramus i tijelo mandibule te zato dovodi do facijalne asimetrije (Slika 1.). Nije bilo vratne limfadenopatije.

Intraoralno je bila uočena čvrsta, ekspandirajuća masa desnoga retromolarnog područja od drugog molara nadalje. Širio se kako bukalni tako i lingval-

Introduction

Mucoepidermoid carcinoma (MEC) arising within the jaws is extremely rare comprising 2–3% of all mucoepidermoid carcinomas reported (1,2). The lesion is considered to be having a low malignant potential except for very few instances of regional & distant metastasis, when treated by less aggressive conservative surgery (2). Central MEC frequently shows very similar clinical and histological features to those of GOC (3,4,5).

The glandular odontogenic cyst (GOC) is a rare odontogenic cyst originally reported by Gardner et al (6). Controversy still exists regarding the terminology, origin and histopathological features since the first report by Padayachee and van Wyk who termed this lesion as Sialo-odontogenic cyst. GOCs are relatively rare, reports suggest just over 50 cases existing in the English literature (7,8,9). Recently, Kaplan et al have used few molecular markers as an aid in the diagnosis of GOC with other lesions such as mucoepidermoid carcinoma (MEC) and radicular cyst (9).

We report an additional case of central low-grade MEC in an attempt to describe its clinico-pathologic features, etio-pathogenesis and discuss its similarities to the GOC. Since both these lesions have a fairly wide histologic spectrum, many a times it is very difficult to differentiate a glandular odontogenic cyst from an intraosseous, predominantly cystic (low-grade) mucoepidermoid carcinoma and may require careful microscopic examination of several sections of the surgical tissue specimen. In the present report, the patient has survived disease free from past about 2 years and has no recurrences or metastases to local/distant metastasis so far.

Case Report

A 46 year old male patient presented with an asymptomatic diffuse swelling in the lower right back region of four weeks duration. The lesion was small in size and attained to present size since 4 months. Previously, he had undergone for extraction of all molars and enucleation of a cyst in the same region 2 years back and unfortunately the details of the same were not available. Extraoral examination of the present lesion showed a diffuse, bony hard swelling involving the right ramus and body of the mandible with facial asymmetry (Figure 1). No cervical lymphadenopathy was present.

Intraorally, a firm, expansile mass at the right retromolar area from the region of the 2nd molar on-

ni korteks prekriven neprekinutom i neulceriranom sluznicom.

Panoramska radiografija mandibule pokazala je veliku, dobro definiranu, multilokularnu, nepravilnu, reznjastu ekspanzivnu osteolitičku leziju veću od 5 X 3 cm, a pružala se od područja drugog molara - uključujući i ramus, te uz veći dio kondila posteriorno na desnoj strani (Slika 2.).

Nakon što je bila postavljena privremena dijagnoza 'ameloblastoma' obavljena je inicijalna biopsija.

Histopatološka analiza toga bioptičkog materijala upućivala je na neoplastične stanice sastavljene uglavnom od velikih slabo obojenih pleomorfnih epidermoidnih stanica sa znatom citoplazmom te nekoliko bistrih stanica u slojevima (Slika 3. i Slika 4.). Na osnovi tih nalaza postavljena je bila dijagnoza centralnoga mucoepidermoidnog karcinoma (to je rijedak intra-osealni maligni žljezdani tumor) te je obavljena kirurška resekcija.

Tijekom prvog ispitivanja reseciranog uzorka bili su uočeni multipli cistični prostori s mekim smečkastim tkivom koje je uključivalo veći dio kondilarnog i koronoidnog procesa mandibule i pružalo se anteriorno u tijelo i ramus mandibule do područja drugog molara (Slika 5.).

Mikroskopska analiza nekoliko komadića ekscidiranog uzorka otkrila je multiple cistične prostore različitih veličina, a bili su obloženi stanicama koje luče mukus i epiteloidnim stanicama (Slika 6.). Epidermoidna komponenta bila je i u vlaknasto-staničnoj stromi (Slika 7.). Mreže i štapići skvamoznih stanica činili su epidermoidnu komponentu (Slika 7.). Mukozni materijal bio je pozitivan na PAS i vidljiv kao «magenta» bojenje unutar cističnih prostora (Slika 8.), a bio je prisutan u vlaknasto-staničnoj vezivnoj stromi tkiva.

Mikroskopski je lezija imala nekoliko velikih cističnih šupljina obloženih nekeratiniziranim višeslojnim skvamoznim epitelom različitih debljina bez spinoznoga sloja povezanog s lokaliziranim naslagama kao zadebljanjima i intraepitelijalnim cističnim prostorima s mucinskim sadržajem ili bez njega (Slika 9.). Na površinskom sloju epitela uočeno je bilo mnogo stanica koje luče mucin u područjima poput žljezdanoga ili onima s kanalićima (Slika 10.). Nije bilo upalne reakcije. Dodatno moramo istaknuti da su u površinskom sloju bile pronađene stanice poput 'čavlića za oglasnu ploču' (Slika 11.). Sva ta obilježja upućuju na GOC.

Ako uzmemo u obzir mjesto lezije i povijest enukleacije ciste te nalaz prema MEC-u, bila je odabrana klasifikacija za centralni MEC niskog stupnja.

wards was noted. There was expansion of both buccal and lingual cortices, with an intact, non-ulcerated normal overlying mucosa.

Panoramic radiograph of the mandible revealed a large, well-defined, multilocular, irregular, lobulated, expansile osteolytic lesion of more than 5 X 3cm in size, extending from the 2nd molar region involving the ramus and most of the condyle posteriorly on the right side (Figure 2).

With the provisional diagnosis of 'ameloblastoma' an incisional biopsy was performed.

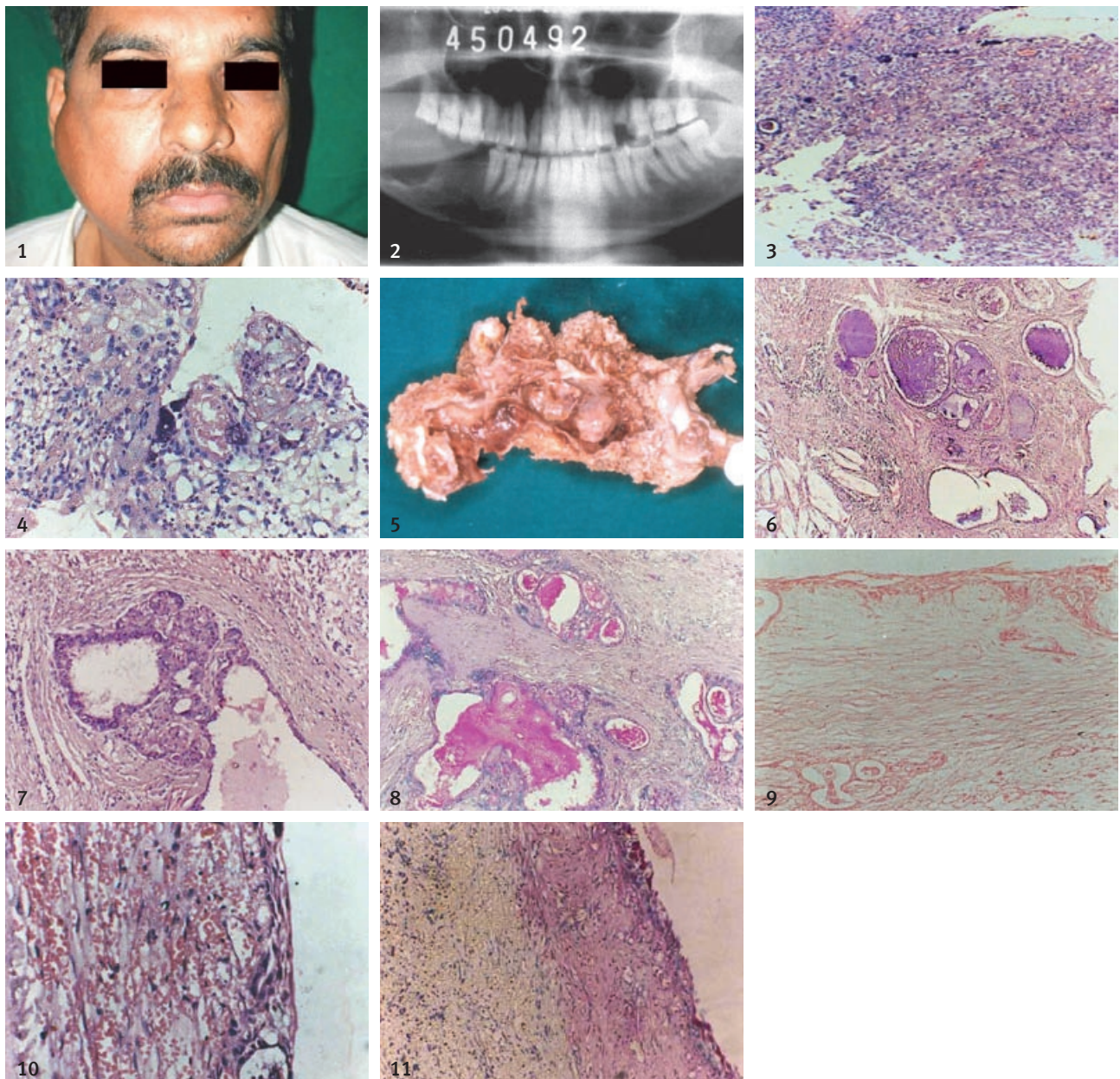
Histopathological examination of the incisional biopsy specimen showed neoplastic cells mainly composed of large lightly stained mucous cells and darkly stained pleomorphic epidermoid cells with granular cytoplasm and also few clear cells arranged in sheets (Figure 3 & Figure 4). Based on these findings, the diagnosis of central mucoepidermoid carcinoma, a rare intra-osseous malignant salivary gland tumor was given and surgical resection was done.

The gross examination of resected specimen revealed multiple cystic spaces with brownish soft tissue mass involving most of the coronoid & condylar process extending anteriorly to the body & ramus of the mandible till the region of 2nd molar (Figure 5).

Microscopic examination of several bits from the excised specimen revealed multiple cystic spaces of varying sizes lined by mucous secreting cells and cells of epidermoid type (Figure 6). The epidermoid component was also present in a fibro-cellular stroma (Figure 7). Nests and strands of squamous cells formed the epidermoid component (Figure 7). Mucinous material was positive for PAS seen as magenta color, within the cystic spaces (Figure 8) present in fibro cellular connective tissue stroma.

Microscopically, the lesion in few sections showed large cystic cavity lined by non keratinized, stratified squamous epithelium of varying thickness without rete ridges associated with localized plaque like thickenings and intraepithelial cystic spaces with or without mucin content (Figure 9). Many mucous secreting cells were seen in the surface layer of the epithelium with duct/gland like areas (Figure 10). There was no inflammatory reaction seen. Additional features like 'hob-nail' superficial cells in the lining were also found (Figure 11). All these features were suggestive of GOC.

Considering the site of the lesion and the history of enucleation of a cyst and major histopathological towards MEC, it was finally reported as central low grade MEC.



Slika 1. Predoperativni izgled pacijenta s lezijom desnoga preaurikularnog područja

Figure 1 Preoperative view of the patient with lesion on the right preauricular area.

Slika 2. Panoramski radiogram (OPG) pacijenta s velikom multilokularnom radiolucencijom od desnog kuta do kondila mandibule

Figure 2 Ortho pantomogram (OPG) of the patient showing a large multilocular radiolucency from right angle to condyle.

Slika 3. Fotomikrografija koja prikazuje velike prozirne/slabo obojene mukozne stanice ispremiježane s epidermoidnim stanicama (Hematoxylin-Eosin bojenje X 100)

Figure 3 Photomicrograph showing large clear/light stained mucus secreting cells intermixed with epidermoid cells (Hematoxylin-Eosin stain X 100).

Slika 4. Fotomikrografija koja prikazuje cistične prostore s mucinom u šupljinama i kuboidne stanice koje ih oblažu. Epidermoidne stanice pokazuju pleomorfizam i hiperkromaziju (Hematoxylin-Eosin bojenje X 250)

Figure 4 Photomicrograph showing both cystic spaces with mucin in the lumen lined by cuboidal cells. Epidermoid cells showing pleomorphism and hyperchromasia (Hematoxylin-Eosin stain X 250).

Slika 5. Fotografija razazanog uzorka – vide se opsežne cistične promjene koje su razorile veći dio zahvaćene strane mandibule

Figure 5 Photograph of bisected gross specimen showing extensive cystic changes destroying most part of the mandible of the affected side.

Slika 6. Fotomikrografija koja prikazuje mnogobrojne male do velike ciste obložene kuboidnim epitelom i mukoznim stanicama u gustom vlaknastom vezivnom stromalnom tkivu (Hematoxylin-Eosin bojenje X 100).

Figure 6 Photomicrograph showing numerous small to large cysts lined by cuboidal epithelial and mucin cells in a dense fibrous connective tissue stroma (Hematoxylin-Eosin stain X 100).

Na osnovi histopatoloških obilježja i kliničkih svojstava, bila je postavljena dijagnoza 'centralnoga MEC-a niskog stupnja'.

Kako bi se izbjegle pogrešne dijagnoze, bilo je zatraženo i neovisno mišljenje dvojice patologa i obojica su predložila klasifikaciju centralnoga MEC-a niskog stupnja.

Pacijent s dijagnozom mucoepidermoidnog karcinoma s pretežno mukoznom komponentom bio poslan na dodatnu terapiju vanjskim zračenjem. Redovito dolazi na kontrole i dvije godine nema simptome bolesti.

Rasprava

U literaturi se preporučuje niz termina kao: žljezdana odontogena cista (6), sijalo-odontogena cista (7), mucoepidermoidna odontogena cista (8) i polimorfna odontogena cista (10). Preporučili su ih razni autori - još od prvih opisa Padayachee i van Wyka godine 1987. Danas se najčešće koristimo izrazom 'žljezdana odontogena cista' te ga je godine 1992. priznala i Svjetska zdravstvena organizacija kao patološki entitet definiran kao vrsta razvojne odontogene ciste (11).

Histopatološka obilježja te ciste opisana su kao kombinacija mucoepidermoidnog karcinoma, no često uzrokuju dijagnostičke nedoumice (3). Nedavno su Tran i suradnici izvijestili o slučaju GOC-a na apikalnom dijelu mandibularnih molara i predložili da se svrsta u histološku varijantu Botryoidove odontogene ciste, pa su tako samo nastavljene terminološke kontroverzije (12).

Žljezdana odontogena cista rijedak je patološki nalaz i u studijama se navodi da je u britanskoj li-

Based on histopathologic features as well as clinical features, the diagnosis of 'central low grade MEC' was given.

To avoid any misdiagnosis, opinion from two expert consultant pathologists was taken and they too suggested the diagnosis of central low grade MEC.

With the diagnosis of mucoepidermoid carcinoma with predominant mucinous component he was referred for further management of adjuvant external beam radiotherapy. He was on regular follow-up and is disease free from past 2-years.

Discussion

Several names such as glandular odontogenic cyst (6), sialo-odontogenic cyst (7), mucoepidermoid odontogenic cyst (8), and polymorphous odontogenic cyst (10) have been proposed by various authors since the first report in 1987 by Padayachee and van Wyk. Till today, 'Glandular odontogenic cyst' is the most popular term and is recognized by the WHO in 1992 as a type of developmental odontogenic cyst to this pathologic entity (11).

The histopathologic features of this cyst have been described as a combination of findings from mucoepidermoid carcinoma, often causing a diagnostic dilemma for pathologists (3). Still recently, Tran et al have presented a case of GOC seen at the apical area of mandibular molars and suggested the possibility of GOC as a histologic variant of the Botryoid odontogenic cyst, making the controversy still existing (12).

Glandular odontogenic cyst is a rare pathology and many reports suggest just over 50 cases existing

Slika 7. Fotomikrografija koja prikazuje dobro diferencirane epidermoidne i mukozne stanice u mikrocističnom obliku (Hematoxylin-Eosin bojenje X 450).

Figure 7 Photomicrograph showing well differentiated epidermoid and mucous cells in a microcystic pattern (Hematoxylin-Eosin stain X 450).

Slika 8. Fotomikrografija koja prikazuje male i velike cistične prostore koji sadržavaju magentom obojen mucin i obložene su mukoznim i epidermoidnim stanicama u vlaknastoj staničnoj stromi (PAS bojenje X 250)

Figure 8 Photomicrograph showing small and large cystic spaces containing magenta coloured mucin lined by mucus secreting cells and epidermoid cells in a fibrocellular stroma (PAS stain X 250).

Slika 9. Fotomikrografija koja prikazuje cistu obloženu nekeratiniziranim, višeslojnim skvamoznim epitelom bez mrežastih mostova povezanih s lokaliziranim zadebljanjima poput naslaga plaka i intraepitelijalnim cističnim prostorima (Hematoxylin-Eosin bojenje X 100)

Figure 9 Photomicrograph showing cyst lined by non keratinized, stratified squamous epithelium without rete ridges associated with localized plaque like thickenings and intraepithelial cystic spaces (Hematoxylin-Eosin stain X 100).

Slika 10. Fotomikrografija koja prikazuje intraepitelijalna mikrocistična područja s tankim cistama obloženima mukoznim stanicama (Hematoksilin-Eozin bojenje X 250)

Figure 10 Photomicrograph showing intraepithelial microcystic areas with thin cyst lined by mucous secreting cells (Hematoxylin-Eosin stain X 250)

Slika 11. Fotomikrografija koja prikazuje stanice poput 'pano-čavlića' i mukozne stanice u površinskom dijelu epitela koji oblaže cističnu šupljinu (Mucicarmine bojenje X 100).

Figure 11 Photomicrograph showing 'hob-nail' like cells and mucous cells in the superficial part of lining epithelium of the cystic cavity (Mucicarmine stain X 100)

teraturi donedavno bilo opisano samo nešto više od 50 slučajeva (8,9,13,14). Kaplan i njegovi kolege podijelili su godine 2005. obilježja u glavna i sporedna histološka svojstva za postavljanje dijagnoze GOC-a. Ti kriteriji bili su primijenjeni u svim njihovim slučajevima GOC-a, a bilo ih je 11 (9). Zbog različitih histoloških obilježja kod ostalih lezija i malo sličnih svojstava s GOC-om, bilo je mnogo dilema u postavljanju dijagnoze GOC-a. To može predstavljati važan dio u planiranju pravilnog liječenja.

Nedavno su Shen i suradnici (15) proučavali još 12 slučajeva žljezdane odontogene ciste (GOC-a) i potvrdili odontogeno podrijetlo koristeći se imunohistokemijskim citokeratinom (CKs-om) u epitelijalnim komponentama.

Mnoga klinička, radiološka i histološka svojstva zajednička su GOC-u i centralnom mukoepidermoidnom karcinomu (MEC-u) niskog stupnja.

Patogeneza centralnoga mukoepidermoidnog karcinoma je kontroverzna, ali mnogi su autori istaknuli kao mogućnost neoplastičku transformaciju zarobljenoga žljezdanog tkiva i oblaganje stijenki odontogene ciste kao jedan od uzroka centralnoga MEC-a (3,16). To se podupire činjenicama da su centralni mukoepidermoidni karcinomi često povezani s odontogenim cistama i neizniklim zubima. Istaknimo da su stanice koje luče mukozni sekret česte u stijenkama dentinskih i drugih odontogenih cista (16). U literaturi neki autori tvrde da se GOC često može pretvoriti u mukoepidermoidni karcinom(3).

Centralni mukoepidermoidni karcinom tri je puta vjerojatniji u mandibuli nego u maksili, uglavnom u stražnjem/ramusnom području. Većina takvih karcinoma su tumori niskog stupnja (16).

Radiološki, kada se kod GOC-a uoči multilokularnost u stražnjem području mandibule, moraju se u postavljanju diferencijalne dijagnoze uzeti u obzir i druge mogućnosti - ameloblastom, odontogena keratocista, centralni giantocelularni granulom, aneurizmalna koštana cista, radikalna cista te, što je najvažnije, MEC niskog stupnja (2,13).

U opisanom slučaju pacijent je rekao da je imao ekstrakciju molara i enukleaciju ciste na istom području, što može upućivati na neoplastični preobražaj zaostale cistične stijenske u MEC. Mikroskopski, nekoliko je rezova sadržavalo velike cistične šupljine obložene nekeratiniziranim, višeslojnim skvamoznim epitelom različitih debljina, bez mrežastoga sloja povezanog s lokaliziranim zadebljanjima naslaga, poput plaka i intraepitelijalnim cističnim prostorima s mucinom ili bez njega (Slika 9.). Mno-

in the English literature till recently (8,9,13,14). In 2005, Kaplan et al have divided the histologic features into major and minor categories for the diagnosis of GOC. These histological criteria were used in all 11 cases of GOC they studied (9). Due to varied histologic features, limited number of cases and presence of some similar features of GOC in other lesions has created a lot of dilemma in arriving at the diagnosis of GOC. This may play a very crucial role in planning proper treatment.

Very recently, Shen et al (15) have studied additional 12 cases of glandular odontogenic cyst (GOC) and confirmed the odontogenic origin of GOC using immunohistochemical cytokeratins (CKs) in the epithelial components.

Many clinical, radiographic and histological features have in common GOC and central low-grade mucoepidermoid carcinoma (MEC).

The pathogenesis of central mucoepidermoid carcinoma is controversial, but many authors have implicated the neoplastic transformation of entrapped salivary gland tissue and odontogenic cyst linings as one of the possible source for central MEC (3,16). This concept is supported by the fact that central mucoepidermoid carcinomas are frequently associated with odontogenic cysts and unerupted teeth. Additionally, mucus-producing cells are a common finding within the lining of dentigerous and other odontogenic cysts (16). In the literature, some authors have also stated that GOCs have a high potential to turn into a mucoepidermoid carcinoma (3).

Central mucoepidermoid carcinoma is three times more likely to present in the mandible than the maxilla, usually in the posterior/ramus region. The majority of central mucoepidermoid carcinomas are low-grade tumors (16).

Radiologically, when the GOC shows multilocularity in the mandibular posterior area, many lesions such as ameloblastoma, odontogenic keratocyst, central giant cell granuloma, aneurismal bone cyst, radicular cyst, most importantly low-grade MEC, must be considered in the differential diagnosis (2,13).

In the present report, our patient gave a previous history of extraction of molars and cyst enucleation in the same region, which may perhaps point toward the possibility of neoplastic transformation of the cyst wall into MEC. Microscopically, few sections showed large cystic cavity lined by non keratinized, stratified squamous epithelium of varying thickness without rete ridges associated with localized plaque like thickenings and intraepithelial cystic spac-

ge stanice koje luče mukozni sadržaj bile su pronađene u površinskim slojevima epitela u područjima poput odvodnog ili žljezdanog (Slika 10.). Nije bilo područja s upalnim reakcijama. Nađena su i dodatna obilježja poput 'pano-čavlića' te površinskih stanica koje oblažu stijenke (Slika 11.). Sve to upozorava na GOC. Ako se uzme u obzir mjesto lezije i enukleacija ciste te velike histopatološke podudarnosti s MEC-om, odlučeno je da se klasificira kao centralni MEC niskog stupnja.

Zaključak

Dijagnoza i razlikovanje GOC-a od drugih sličnih lezija nužno je za ispravan plan terapije, ali i za daljnje kontrole.

Zbog rijetkih opisa slučajeva GOC-a i centralnoga MEC-a, nema odgovora na mnoga pitanja u vezi s histogeneom, mikroskopskim obilježjima, biološkim ponašanjem i odgovarajućom terapijom tih dviju sličnih lezija.

Na kraju, raznolikost i preklapanje histopatoloških obilježja s drugim lezijama, patolozima često predstavlja dijagnostički izazov. Zato ističemo da je za dijagnozu potrebna histopatološka analiza cijeloga ekscidiranog tkiva kako bi se identificirala neoplastička transformacija iz GOC-a ili bilo koje odontogene ciste u centralni MEC niskog stupnja. Točno postavljena dijagnoza vrlo je važna za uspješnu terapiju i sprječavanje ponovnih istih lokalnih lezija ili metastaza. Ubuduće će biti prijeko potrebno da se novi slučajevi dokumentiraju i pazorno prate kako bi se omogućile što uspješnije terapijske varijante i spriječili recidivi.

es with or without mucin content (Figure 9). Many mucous secreting cells were seen in the surface layer of the epithelium with duct/gland like areas (Figure 10). There was no inflammatory reaction seen. Additional features like 'hob-nail' superficial cells in the lining were also found (Figure 11). All these features were suggestive of GOC. Considering the site of the lesion and the history of enucleation of a cyst and major histopathological towards MEC, it was finally reported as central low grade MEC.

Conclusion

The diagnosis and differentiation of GOC from other similar appearing lesions are very essential for correct treatment plan and also for follow-up.

Due to the rarity of case reports of GOC and central MEC, there are many questions left behind to be answered concerning the histogenesis, microscopic features, biologic behavior and appropriate treatment of these two similar lesions.

To conclude, varied and overlapping histopathological features with other lesions often present diagnostic challenges for pathologists. So, we suggest that a careful histopathological examination of complete excised tissue is needed to identify any neoplastic transformation from GOC or any other odontogenic cyst to central low grade MEC. Exact diagnosis has a very significant role in providing successful treatment and to prevent any local recurrences or metastases, as recommended earlier. It is very much essential that new cases are to be documented and followed carefully so that more accurate, better treatment modalities can be drawn to prevent any recurrences.

Abstract

Mucoepidermoid carcinoma occurring centrally within the jaws is a rare lesion which exhibits considerable histologic variability. The exact pathogenesis is unknown; the hypothesis is that the epithelial linings of odontogenic cysts play most important part. Since many oral pathologists and clinicians seldom encounter this lesion, criteria for diagnosis and clinico-pathological guidelines are considered necessary. We report an additional case of central low grade mucoepidermoid carcinoma occurring in a 46 yr old male patient and describe its clinico-pathologic features and discuss the similarity to the glandular odontogenic cyst (GOC). The World Health Organization has named GOC as an independent pathologic entity and classified it as a developmental odontogenic epithelial cyst.

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Key words

Odontogenic cyst; Carcinoma,
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