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Nazolabijalna cista: prikaz slučaja i pregled literature

Nasolabial Cyst: a Case and Literature Review

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Sažetak

Nazolabijalna cista je neodontogenog podrijetla i nastaje od ostataka epitela nazolakrimalnog kanala. Klinički se očituje kao unilateralna, rijetko bilateralna, meka fluktuirajuća oteklina u nazolabijalnom području. Može uzrokovati obliteraciju nazolabijalnog nabora te odizanje nosnih krila. Iako je asimptomatska, ova cista može, ako se inficira, uzrokovati bol. Najčešće zahvaća žene u četvrtom i petom desetljeću. Osim na temelju kliničkih obilježja, dijagnosticira se CT- i MR-snimkama. Konačna dijagnoza potvrđuje se histopatološkom analizom. Terapija izbora je kirurška enukleacija oralnim pristupom sublabijalno. U ovom članku opisan je tretman nazolabijalne ciste kod 42-godišnje žene. Uz prikaz slučaja priložen je i kratak pregled literature.

Zaprimljen: 9. kolovoza 2013.

Prihvaćen: 24. studenoga 2013.

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Ključne riječi

neodontogene ciste; nosno-suzni kanal;
nosno-usna brazda

Uvod

Zuckerkaardl je još 1882. godine opisao nazolabijalnu cistu (NC) kao nazoalveolarnu tvorbu (1,2). Rao je, pak, 1995. godine prvi put upotrijebio naziv *nazolabijalna cista* (2). Taj se termin poslije pokazao ispravnim jer NC nastaje u području nosnih krila i ograničen je samo na meka tkiva (3).

Nazolabijalnu cistu je Svjetska zdravstvena organizacija (WHO) klasificirala kao neodontogenu cista. Dvije su teorije o njezinu podrijetlu.

Klestad je 1913. godine (4) smatrao da NC nastaje od zastaloga epitelnog tkiva nakon stapanja maksilarnih i nazalnih (medijalnih i lateralnih) nastavaka. Prema toj teoriji, NC je fisuralna ili inkluzijska cista. No Klestadova teorija nije dovoljno dokumentirana (5, 6).

Prema drugoj teoriji, onaj Bruggermanna iz 1920. godine (7), NC nastaje od embrijskih ostataka nazolakrimalnog kanala. Ta teorija ima histološku potporu zbog pseudostratificiranog cilindričnog epitela koji oblaže nazolakrimalni kanal, a nalazi se u NC-u (6, 8). Tu teoriju prihvatio je WHO, no ima opisa slučajeva koji bi je mogli promijeniti (3).

Klinički se NC očituje kao mekana fluktuirajuća oteklina u nazalnoj regiji koja često završava obliteracijom nazolabijalnog nabora te odizanjem nosnih krila. Cista se može proširiti intranasalno odizujući dno nosa te intraoralno u gingivolabijalni sulkus na zahvaćenoj strani. U tom slučaju može oponašati periapikalni ili periodontalni apsces (1, 2).

Ova primarno bezbolna izraslina polako raste, ali boli ako se inficira. U tom se slučaju može spontano iscijediti u nos ili usnu šupljinu (1, 2).

Introduction

The nasolabial cyst (NC) was first described by Zuckerkaardl in 1882 as a nasoalveolar cyst (1,2). In 1995 Rao first used the term nasolabial (2). This term is the correct one since NC occurs in nasal alar region and is limited to soft tissues only (3).

The nasolabial cyst (NC) has been classified as a non-odontogenic cyst by the World Health Organization. Two main theories were suggested concerning its origin.

In 1913, Klestadt (4) suggested that the NC originates from entrapped epithelial tissue, which remains after the fusion of maxillary and nasal (median and lateral) process. According to this theory, the NC is a fissural or inclusion cyst. However, Klestadt's theory is not sufficiently documented (5, 6).

According to the second theory, which was suggested by Bruggermann in 1920, (7) the NC develops from embryologic remnants of the nasolacrimal duct. This theory is histologically supported, because the pseudostratified columnar epithelium which lines the nasolacrimal duct is found in the cystic cavity of NC (6, 8). The above theory is adopted by W.H.O. Nevertheless, some reported objections may call for a revision (3).

Clinically, the NC manifests as a soft fluctuant swelling in the nasoalar region, usually leading to obliteration of the nasolabial fold and elevation of the nasal ala. The NC may extend intranasally raising the nasal floor, as well as intraorally in the gingivolabial sulcus on the involved side. In that case, it may mimic the appearance of a periapical or periodontal abscess (1, 2).

NC obično nastaje u četvrtom ili petom desetljeću života i od njega pate uglavnom žene. Odnos pojave ciste kod muškarca i žena jest 1:2 (2), 1:3 (9), 1:3.5 (1) i 1:6.5 (6).

Svrha istraživanja bila je predstaviti uspješnu terapiju nazolabijalne ciste te kratak pregled literature.

Prikaz slučaja

Pacijentica u dobi od 42 godine došla je u našu kliniku zbog bezbolne otekline između lijevoga nosnog krila i gornje usnice koja se pojavila prije tri mjeseca. Žalila se na lokalizirani pritisak i narušenu estetiku.

Pacijentica je spomenula da se otekline pojavljivala već nekoliko puta i to u razmaku od oko šest mjeseci. Zbog toga je potražila liječničku pomoć jer se požalila na postupak intraoralne incizije u lokalnoj anesteziji uz iscjedak, ali se otekline vratila u prvotnu veličinu.

Kliničkim pregledom ustanovljena je okrugla otekline promjera jedan centimetar, asimptomatska, bezbolna, fluktuirajuća na palpaciju u lijevoj nazolabijalnoj regiji. Protezala se intranasalno, gingivolabijalno te intraoralno u vestibulum. Oralna sluznica bila je normalne boje. Zahvaćeni zubi bili su vitalni (vitalitet je bio ispitan električnim testerom vitaliteta).

Opća anamneza bila je bez osobitosti.

CT-snimka pokazala je dobro ograničenu cističnu leziju u velikom dijelu lijeve nosne šupljine, no nije uočena zahvaćenost kosti. Lezija je bila ograničena na meko tkivo.

Kliničkim pregledom i analizom CT-snimke dijagnosticirana je nazolabijalna cista.

Kao terapija odabrana je intraoralna kirurška enukleacija. Zahvat je obavljen u lokalnoj anesteziji. Oporavak je prošao bez osobitosti. Pacijentica je održavala zdravlje, te joj se godinu dana nakon zahvata nije pojavila nova cista.

Histološka analiza potvrdila je pseudostratificirani sloj cilindričnog epitela u stijenki ciste. Bile su prisutne i mnoge mukozne (goblet) stanice. Stijenka ciste bila je građena od rahlog vezivnog tkiva. Ovi nalazi potvrdili su kliničku dijagnozu.

This primarily painless mass, showing slow enlargement will grow and become painful when infected. The infected cyst may drain spontaneously into the nose or into the oral cavity (1, 2).

Usually the nasolabial cyst develops during the fourth or fifth decade of life appearing with a characteristic female predisposition and presenting a ratio between male and female, from 1:2 (2), 1:3 (9), 1:3.5 (1) to 1:6.5 (6).

The aim of our study is to present a successfully treated case of a female patient with a nasolabial cyst, along with a brief review of the literature.

Case report

A 42 year old woman was referred to our clinic with a painless swelling between the left ala of the nose and upper lip, existing for the last three months. Her complaints were a localized discomfort as well as an aesthetic problem due to the swelling.

As the patient reported, the swelling had developed two more times in the past. The period in-between the two developments in the past was about six months. For that reason, she asked for medical care and, as she reported, she underwent an intraoral incision, under local anesthesia, leading to fluid discharge. After an initial reduction of the swelling, it returned to its former size.

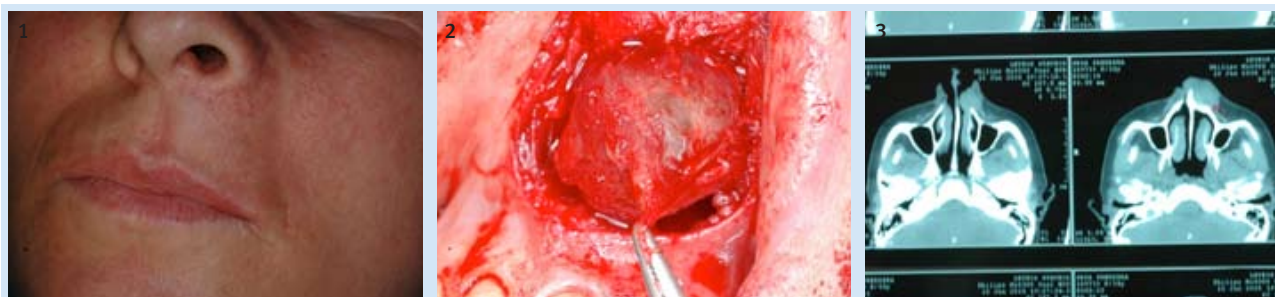
Clinical examination revealed a round swelling about 1 cm in diameter, asymptomatic, painless but fluctuant in palpation, in the left nasolabial region. Swelling extended intranasally as well as in the gingivolabial vestibule intraorally. The oral mucosa was normal in color. The adjacent teeth were vital (positive vitality test by electric pulp tester).

Her medical history was unremarkable.

A computed tomography (CT) scan showed a well-demarcated cystic lesion, occupying a large portion of the left nasal cavity. Bone invasion was not observed, so the cystic lesion was limited to soft tissue entirely.

From clinical and CT scanning findings, the diagnosis made was a nasolabial cyst.

Intraoral surgical enucleation of the nasolabial cyst was the treatment of choice. The surgery was carried out under local anesthesia. The patients' post-surgical course was uneventful. The patient is healthy and there has been no recurrence one year after the surgical procedure.



Slika 1. Otekline u lijevoj nazolabijalnoj regiji; predoperativni ekstraoralni izgled

Figure 1 Swelling in the left nasolabial region: preoperative extraoral appearance

Slika 2. Intraoperativni izgled NC-a tijekom intraoralnog (sublabijalnog) postupka

Figure 2 Intraoperative appearance NC during intraoral (sublabijalnog) procedure

Slika 3. Aksijalna CT-snimka pokazuje oštro ograničenu cističnu leziju

Figure 3 Axial CT scan shows a sharply circumscribed cystic lesion

Rasprava

Nazolabijalna cista razmjerno je rijetka. Vasconcelos i suradnici (6) napravili su retrospektivnu analizu za 31 godinu unatrag i ustanovili 15 NC-a (0,1 %) među 12 591 uzorkom cista poslanih na biopsiju. Choi i njegovi kolege (9) u svojoj retrospektivnoj analizi pronašli su 18 slučajeva NC-a u 12 godina, ali ne navode ukupan broj pacijenata koji su u tom razdoblju došli u njihovu kliniku. Loper-Roga i suradnici (10) pronašli su osam NC-a među ukupno 2 730 pacijenata, što iznosi 0,29 posto uzorka.

Unatoč tomu treba istaknuti da NC može godinama biti nezapažen i nedijagnosticiran zbog karakterističnoga sporog i asimptomatskog rasta (2, 9).

Najčešći simptomi zbog kojih pacijenti potraže liječničku pomoć jesu otekline u nazolabijalnom području (estetski problemi lica) i opstrukcija nosa zbog intranasalne protruzije ciste (alergični rinitis ubraja se u diferencijalnu dijagnozu) (6, 9).

Kao što je već spomenuto, NC je bezbolan, no ako se inficira može se manifestirati kao dentoalveolarni apsces (2). Diferencijalna dijagnoza postavlja se testiranjem vitaliteta zahvaćenog zuba. Osim periapikalnog apscesa, u diferencijalnu dijagnozu ubrajamo paradontni apsces, inficiranu odontogenu cistu i nazolabijalni furunkul (6, 9, 11).

Iz pacijentične anamneze možemo isključiti traumatsku oteklinu i otekline uzrokovane infekcijama. Ciste neodontogenog podrijetla, kao što su epidermalne, treba razlikovati od NC-a, no za to je potreban detaljan klinički pregled i histopatološki nalaz.

Benigne i maligne neoplazme moraju biti uvrštene u diferencijalnu dijagnozu (12).

Tumori podrijetlom od pločastog epitela, sluznice žlijezda slinovnica i oni nastali od ostalih tkiva kao što su mišići (leomiom), te živčano (Schwannom) i vaskularno tkivo (hemangiom), trebali bi biti uključeni u diferencijalnu dijagnozu (12).

Maligni tumori obično perforiraju alveolarnu kost, ali to nije slučaj kod NC-a. No Liboria i suradnici (12) naveli su da su zloćudne novotvorine koje se pojavljuju u mekom tkivu obično ograničene na meko tkivo, kao u slučaju s alveolarnim rhabdomyosarkomom. U svakom slučaju potrebna je incizijska biopsija i histopatološka analiza kako bi se postavila točna dijagnoza.

Unilateralna cista na lijevoj ili desnoj strani nazolabijalnog područja češća je nego bilateralna. Vasconcelos i suradnici opisali su bilateralnu pojavu u jednom slučaju (6,6 %) od ukupno 15 (6). Isti omjer dobili su Yuen i njegovi kolege (2) te Marcoviceanu sa suradnicima. (13) dok su opisivali rijedak oblik bilateralnog NC-a. U diferencijalnu dijagnozu uvrstili su Melkerson-Rosenthalov sindrom (MRS). Mi smatramo da MRS ne treba uvrstiti u diferencijalnu dijagnozu zato što se otekline gornje usne u ovom slučaju klinički razlikuje.

Histological examination revealed that the cyst was lined with pseudostratified columnar epithelium. Numerous Goblet cells were present. The cyst wall was composed of loose connective tissue. The above findings confirmed the clinical diagnosis.

Discussion

The NC is a rare occurrence. In a retrospective analysis of 15 cases of NC, Vasconcelos et al (6) mentioned 15 (0.1 %) cases of NC among 12.591 biopsy specimens which were evaluated during 31 years. Also, Choi et al. (9), in a retrospective analysis reported 18 cases of NC evaluated histologically in a 12 years period, but they did not report the total number of patients who visited their clinic during that period of time. Lopez – Roha et al. (10) reported 8 NC among 2730 patients (0.29 %).

Nevertheless, it must be pointed out that NC may exist unnoticed by the patient for a long period of time, even for years, due to its slow and asymptomatic enlargement (2). Hence, it might remain undiagnosed for many years (9).

Swelling of the nasolabial area (aesthetic facial problems) or/and the sensation of nasal obstruction due to intranasal protrusion of the NC (in that case allergic rhinitis stands among differential diagnosis) constitute typical complaints, prompting the patient to ask for medical care (6, 9).

As mentioned above, the NC is painless but the infected NC is painful and may mimic an acute dentoalveolar abscess (2). The differential diagnosis will be easily made by pulp vitality testing of the affected tooth. Apart from the periapical abscess, the differential diagnosis should include periodontal abscess, infected dentigerous cyst and nasolabial furuncle (6, 9, 11).

In addition to infected swellings, traumatic swelling is easily excluded according to the patients' medical history. Non-odontogenic origin cysts, such as epidermal cyst, ought to be differentiated from NC by observing the clinical and histopathological features.

Benign or malignant neoplasms must also be included in differential diagnosis (12).

Tumors from oral squamous epithelium, salivary gland mucosa, as well as those from other soft tissues as muscles (leiomyoma), neural (Schwannoma), vascular (hemangioma), should be also included (12).

Malignant tumors usually perforate the substantial alveolar bone but this feature is not characteristic for NC. Besides, malignant tumors arise and are limited to soft tissues, as in the rare case of alveolar rhabdomyosarcoma, which was reported by Liborio et al. (12). In any case, incisional biopsy and histopathological examination must be performed in order to make a correct diagnosis.

Unilateral development on the right or left side of the nasolabial area is more common than the bilateral one. Vasconcelos et al (6) report only one bilateral case (6.6%) among 15 NC in total. The same range is referred by Yuen et al. (2). Marcoviceanu et al. (13) while describing a rare case of bilateral NC involvement included Melkerson – Rosenthal syndrome (MRS) in differential diagnosis. We believe that MRS must not be included in the previous differential diagnosis, since upper lip swelling differs clinically. In addition,

Osim toga intraoralna otekline na slici 1. znatno je drukčija od intraoralne otekline nastale od MRS-a (14).

Rendgenske snimke ne pokazuju nikakve sjene jer je NC lociran samo u mekom tkivu. Zato periapikalne snimke i ortopantomogrami ne pridonose konačnoj dijagnozi i ne mogu pomoći u određivanju granica ciste.

Dijagnostički napredak postignut je zahvaljujući kompjutoriziranoj tomografiji (CT) i zato je CT-snimka vrlo važna za pretkirurško planiranje i procjenu veličine lezije (15, 16). Uz CT iznimno je koristan i MR (15).

Dakle, NC je ograničen na meko tkivo i ne širi se u alveolarnu kost. No ponekad je ipak perforira (1). Prije nego što su CT-snimke postale standard u dijagnostici, u cistu se ubrizgavao kontrast kako bi se uočile njezine točne granice na rendgenskoj slici. Ta metoda ponekad je znala uzrokovati infekciju NC-a.

Karthikeya i suradnici koristili su se tom metodom u svojem prikazu slučaja. Inicijalna rendgenska snimka bila je negativna, nakon toga su u cistu injicirali kontrast, a zatim je slijedila analiza CT-snimke koja je pokazala jasne granice lezije. Autori su nakon ubrizgavanja kontrasta uočili komplikaciju u obliku upale.

Histopatološka analiza ciste može otkriti razne vrste epitela koji oblažu njezinu unutrašnjost – od nekeratiziranog pločastog epitela do cilijarnog respiratornog (1). U literaturi se navodi mnogo vrsta epitela, kao na primjer višeslojni pločasti, pseudostratificirani cilindrični, te kubični ili cilijarni epitel. Mogu se pronaći i mnoge goblet stanice s mukoznim citoplazmama između epitelnih stanica koje izgledaju kao male praznine u epitelu (3). Zid cistične ovojnice sastoji se uglavnom od vezivnog tkiva, gotovo uvijek neopaženog (1, 3, 9), a katkad može sadržavati dijelove mišića (2), živce, krvne žile, hrskavicu i manje žlijezde slinovnice (6).

Analiza elektronskim mikroskopom otkriva dvoslojnu strukturu obložnog epitela koji se sastoji od kubičnog bazalnog sloja i cilindričnoga gornjeg sloja u kojemu su umetnute mukozne (goblet) stanice. Takva struktura vrlo je slična odljevnim kanalčićima suznih žlijezda (8). Osim mikroskopskih analiza, od koristi bi mogla biti i imunohistološka analiza (8).

Terapija izbora je kirurška ekscizija lezije intraoralno sa sublabijalnim pristupom (3, 6, 9, 16).

Kirurškom enukleacijom NC-a izbjegava se ponovna pojava ciste, sprječava njezina infekcija, poboljšava estetski izgled pacijenta te omogućuje histopatološka analiza i postavljanje konačne dijagnoze (2).

Perforacija dna nosa uočena je kad NC nastaje vrlo blizu nosa. Takva komplikacija nije ozbiljna i lako se reparira šivanjem (1, 6).

Za liječenje NC-a, osim ekscizije, može se predložiti i aspiracija iglom, incizija s pražnjenjem, kauterizacija te marsupijalizacija. Kod svih tih metoda velika je opasnost od ponovne pojave ciste (2).

Endoskopska transnazalna marsupijalizacija (TEM) predlaže se kao alternativna metoda liječenja NC-a (18, 19, 20).

U postupku kirurškom ekscizijom uklanjanja se vrh ciste te obavlja spajanje s nosnom sluznicom radi pražnjenja

intraoral swelling as seen in Figure 1 differs significantly from MRS intraoral swelling (14).

There are no radiographic findings, since NC is limited to soft tissues only. Consequently, periapical and panoramic radiographs contribute neither to the final diagnosis nor to the limitation of the cyst.

Diagnostic contribution of computerized tomography (CT) is of high significance, therefore CT is considered essential for the presurgical estimation of lesion extent and limitation (15, 16). Apart from CT, MRI is also considered useful (15).

As mentioned above, NC is limited to soft tissues, without expanding to alveolar bone. However, occasionally NC may perforate the underlying alveolar bone (1). In the past, prior to the wide use of CT, an injection in the cyst of a contrast medium solution was used, in order to have the exact boundaries of the cyst determined. The previous method, apart from its diagnostic contribution, might possibly cause an infection to NC.

The fact that Karthikeya et al. (17) used this method in their case report is surprising, since they initially had negative x-ray results, thereafter an intraoral radiographic examination using a contrast medium solution and, finally, a CT for a clear display of the area. The same authors pointed out the cyst infection as a complication, due to the injection of the medium solution in the cyst.

Histopathological examination may reveal various types of epithelial tissue lining in the cyst, from nonkeratinized squamous epithelium to ciliated respiratory epithelium (1). According to the literature, many types of epithelium may be detected, such as stratified squamous, pseudostratified columnar, cuboid or ciliated epithelium. Numerous Goblet cells with mucus – filled cytoplasm, may be traced among epithelial cells, appearing as clear spaces (3). The cyst wall is composed of a thin layer of connective tissue, which is usually undistinguished (1, 3, 9). Sometimes the supporting connective tissue may contain components of the adjacent skeletal muscles (2) as well as nerve bundles, vascular tissue, cartilage or minor mucous glands (6).

Ultrastructural – using electron microscopy – examination reveals a bilayered structure of the covering epithelium, which is constituted of a cuboidal basal layer and columnar luminal cells with mucous (goblet) cells. According to these findings, there is a significant similarity to the structure of lacrimal drainage system (8). Nevertheless, apart from microscopic and ultrastructural examination, the immunohistological examination may be useful (8).

The treatment of choice is the surgical excision of the lesion through intraoral sublabial approach (3, 6, 9, 16).

The surgical enucleation of the NC avoids recurrence, prevents cyst's infection, leads to an aesthetically better result and makes possible the histopathological examination and final diagnosis (2).

The perforation of the floor of the nose has been reported in the case in which the NC is located very close to it. This complication, which is not so serious, can be repaired efficiently by suturing (1, 6).

Apart from surgical excision, needle aspiration, incision and drainage, cautery and marsupialization have been re-

mukoznog sadržaja. Cista se detaljno pregledava nanoendoskopom kako bi se omogućilo bolje pražnjenje. Ostatak se marsupijalizira, pa se cista transformira u zrakom ispunjenu prazninu u dnu nosa (18).

Su i suradnici primijenili su tu metodu na 16 pacijenata (18). U samo jednom slučaju cista se ponovno pojavila 16 mjeseci nakon zahvata. Ramos i suradnici prijavili su ponovnu cistu u dva slučaja i to 18 mjeseci nakon zahvata. Tijekom zahvata nisu se koristili nanoendoskopom (19). Chao i suradnici primijenili su TEM-metodu na 34 pacijenta i standardnu intraoralnu kiruršku eksciziju na njih 23. Ni u jednom slučaju nisu uočili ponovnu cistu (19).

Prema navedenim člancima, TEM-metoda postoperativno manje boli, otekline su manje kao i gubitak krvi. Za taj je postupak također potrebno manje vremena nego za intraoralnu metodu, što može smanjiti troškove i skratiti hospitalizaciju (18, 19, 20, 21).

Postoperativne komplikacije nakon intraoralne ekscizije minimalne su ako je zahvat obavio iskusni kirurg.

Lee i suradnici zaključili su da je jedina razlika između tih dviju metoda trajanje zahvata jer intraoralna incizija traje otprilike pola sata dulje (28 min.) nego TEM (22). Prema našem mišljenju TEM-metoda, iako kraće traje, potiče nastanak intranazalnog sinusa koji je podložan upalama pa se cista može ponovno pojaviti (21).

Intranazalni sinus, uz opetovano pojavljivanje ciste, može pogoršati stanje u nosu i narušiti zdravlje pacijenta zbog upale šupljine. Novonastala intranazalna šupljina može promijeniti arhitekturu nosa koja se manifestira kao fonetičarski problem (promjena registra i boje glasa).

Intranazalni pristup indiciran je kod pacijenata koji imaju kompliciranu medicinsku anamnezu i onih kod kojih je kontraindiciran dugotrajni kirurški postupak (23). Zbog svih tih razloga za kirurško liječenje NC-a uglavnom se odabire intraoralni pristup.

Možemo zaključiti da je intraoralna kirurška enukleacija najuspješnija u liječenju NC-a, a CT je vrlo korisno dijagnostičko sredstvo. Brza dijagnoza, dok je NC još u ranoj fazi, rezultira učinkovitom terapijom bez komplikacija.

ported in the management of NC. All the above treatments have a high risk of recurrence (2).

Endoscopic transnasal marsupialization (TEM) has been reported as an alternative therapeutic management of the NC (18-20).

TEM includes the removal of the cyst's roof by surgical excision with the connection of nasal mucosa, for the drainage of the mucoid content. A thorough examination of the NC is made under the guidance of the nasoendoscope, in order to achieve better drainage. The remaining cyst is marsupialized, resulting in its transformation to an air-containing sinus in the floor of the nose (18).

Su et al. (18) primarily applied TEM in 16 patients. All of them apart one, did not develop any recurrence in a period in-between 16 months follow up. Ramos et al. (19) report no recurrence in 2 patients in a period in-between 18 months follow up, but they did not use the nasoendoscope. Chao et al., (20) after managing 34 patients with NC applying TEM as well as 23 patients using intraoral surgical excision of the NC, did not report any recurrence in both patients' groups.

According to the above articles, less postoperative pain and swelling, as well as blood loss stand among the benefits of TEM. Additionally, TEM operating time is shorter than in the intraoral surgical procedure and a possible reduction of the costs might exist, due to minimizing of hospitalization (18-21).

Postoperative complications in the case of intraoral surgical excision, are being minimized when performed *lege artis* by an experienced surgeon.

Lee et al. (22) when comparing the two methods drew the conclusion that the only difference exists in the operative duration, since the intraoral surgical excision lasts half an hour (28min) more than TEM. Nevertheless, in our opinion, the reduction of the time in surgery will lead to an intranasal air-containing sinus, which may be followed by inflammation as well as a nasolabial cyst recurrence (21).

The development of an intranasal air-containing sinus, apart from the potential cysts' recurrence, may worsen the nasal health status by a recurring inflammation. Additionally, a change of the nasal architecture, due to new intranasal cavity (air-containing sinus) may result in patients' resentment as well as voice problems (change in tone and voice color).

Intranasal approach management may possibly be indicated when the patient's medical history is complicated and a more extensive surgical approach is contraindicated (23).

Hence, intraoral surgical enucleation is generally recommended for the NC treatment.

In conclusion, intraoral surgical enucleation is the most effective treatment for NC, while CT is a very useful diagnostic tool. Prompt diagnosis, when the NC is limited in size, results in an effective and uncomplicated treatment.

Abstract

The nasolabial cyst is a non-odontogenic cyst which originates from the epithelial remnants of the nasolacrimal duct. Its clinical appearance is a unilateral, rarely bilateral, soft fluctuant swelling in the nasolabial region. It may lead to obliteration of the nasolabial fold and elevation of the nasal ala. Although the above cyst is asymptomatic, when infected it becomes painful. Mostly affected are women in the fourth to fifth decade of life. Apart from clinical manifestations, CT and MRI may establish the diagnosis. The histopathological examination confirms the final diagnosis. Surgical enucleation of the cyst through intraoral (sublabial) approach is the treatment of choice. In this article we describe a nasolabial cyst case in a 42-year old woman and its management along with a brief review of the literature.

Received: August 9, 2013

Accepted: November 24, 2013

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Key words

Nonodontogenic Cysts; Nasolacrimal
Duct; Nasolabial Fold

References

- Allard RH. Nasolabial cyst. Review of the literature and report of 7 cases. *Int J Oral Surg.* 1982 Dec;11(6):351-9.
- Yuen HW, Julian CY, Samuel CL. Nasolabial cysts: clinical features, diagnosis, and treatment. *Br J Oral Maxillofac Surg.* 2007 Jun;45(4):293-7.
- López-Ríos F, Lassaletta-Atienza L, Domingo-Carrasco C, Martínez-Tello FJ. Nasolabial cyst: report of a case with extensive apocrine change. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 1997 Oct;84(4):404-6.
- Klestadt W. Geschttsspaltenzystew. *Berl Klin Wochenschr.* 1913;50:1683-5.
- Wesley RK, Scannell T, Nathan LE. Nasolabial cyst: presentation of a case with a review of the literature. *J Oral Maxillofac Surg.* 1984 Mar;42(3):188-92.
- Vasconcelos RF, Souza PE, Mesquita RA. Retrospective analysis of 15 cases of nasolabial cyst. *Quintessence Int.* 1999 Sep;30(9):629-32.
- Brüggemann A. Zysten als Folge von Entwicklungsstörungen im Naseneingang. *Arch Laryngol Rhinol.* 1920;33:101-5.
- Toribio Y, Roehrl MH. The nasolabial cyst: a nonodontogenic oral cyst related to nasolacrimal duct epithelium. *Arch Pathol Lab Med.* 2011 Nov;135(11):1499-503.
- Choi JH, Cho JH, Kang HJ, Chae SW, Lee SH, Hwang SJ, et al. Nasolabial cyst: a retrospective analysis of 18 cases. *Ear Nose Throat J.* 2002 Feb;81(2):94-6.
- Lopes-Rocha R, Dornela Verli F, Lages Lima N, Rocha Dos Santos CR, Aparecida Marinho S. Nasolabial cyst: 18.5 year experience in a pathology laboratory. *Minerva Stomatol.* 2011 Nov-Dec;60(11-12):567-72.
- Nixdorf DR, Peters E, Lung KE. Clinical presentation and differential diagnosis of nasolabial cyst. *J Can Dent Assoc.* 2003 Mar;69(3):146-9.
- Libório TN, Capuano AC, Mantesso A, Gatti A, Nunes FD, Pinto-Junior DS. Asymptomatic expansile lesion in the nasolabial region of a 10-year-old child. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2009 Mar;107(3):313-7.
- Marcoviceanu MP, Metzger MC, Deppe H, Freudenberg N, Kassem A, Pautke C, et al. Report of rare bilateral nasolabial cysts. *J Craniomaxillofac Surg.* 2009 Mar;37(2):83-6.
- Wiesenfeld D, Ferguson MM, Mitchell DN, MacDonald DG, Scully C, Cochran K, et al. Oro-facial granulomatosis--a clinical and pathological analysis. *Q J Med.* 1985 Jan;54(213):101-13.
- Sumer AP, Celenk P, Sumer M, Telcioglu NT, Gunhan O. Nasolabial cyst: case report with CT and MRI findings. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2010 Feb;109(2):e92-4.
- Boffano P, Gallezio C, Campisi P, Roccia F. Diagnosis and surgical treatment of a nasolabial cyst. *J Craniofac Surg.* 2011 Sep;22(5):1946-8.
- Patil K, Mahima VG, Divya A. Klestadt's cyst: a rarity. *Indian J Dent Res.* 2007 Jan-Mar;18(1):23-6.
- Su CY, Chien CY, Hwang CF. A new transnasal approach to endoscopic marsupialization of the nasolabial cyst. *Laryngoscope.* 1999 Jul;109(7 Pt 1):1116-8.
- Ramos TC, Mesquita RA, Gomez RS, Castro WH. Transnasal approach to marsupialization of the nasolabial cyst: report of 2 cases. *J Oral Maxillofac Surg.* 2007 Jun;65(6):1241-3.
- Chao WC, Huang CC, Chang PH, Chen YL, Chen CW, Lee TJ. Management of nasolabial cysts by transnasal endoscopic marsupialization. *Arch Otolaryngol Head Neck Surg.* 2009 Sep;135(9):932-5.
- Imre A, Pinar E, Calli C, Oncel S. Endonasal endoscopic approach for recurrent nasolabial cyst. *J Craniofac Surg.* 2012 Sep;23(5):e438-40.
- Lee JY, Baek BJ, Byun JY, Chang HS, Lee BD, Kim DW. Comparison of Conventional Excision via a Sublabial Approach and Transnasal Marsupialization for the Treatment of Nasolabial Cysts: A Prospective Randomized Study. *Clin Exp Otorhinolaryngol.* 2009 Jun;2(2):85-9.
- Tanaka S, Iida S, Murakami S, Kishino M, Yamada C, Okura M. Extensive nasopalatine duct cyst causing nasolabial protrusion. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* 2008 Oct;106(4):e46-50.