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The Treatment of Exostosis Cavum Nasal

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ABSTRACT

Exostosis was a benign overgrowth bony tissue protruding out from the surface of the bone abnormally. These lesions may occur in any bone or cartilage. ENT-HN field, cases of exostosis were commonly locate in the ear canal (Surfer's ear). Paranasal sinuses exostosis was rare reported and in nasal cavity had yet not been reported. Pathogenesis of nasal cavity and paranasal sinus exostosis remains uncertain, alleged exposure to water or cold air causes exostosis growth in the paranasal sinuses and nasal cavity. Diagnosis was determined on anamnesis, physical examination, investigations findings such as computed tomography and histopathologic examination as a definitive diagnostic tool. Management exostosis is extirpation with endoscopic guidance. To present the management of a 28-year-old woman with a diagnosis of nasal exostosis this extends to oropharynx through choana. Case: Reported a 28-year-old woman with a diagnosis of nasal exostosis which extends to oropharynx through choana and has been manage by extirpating the mass with intranasal endoscopic approach and transchoana. After six months follow up with nasoendoscopic assessment there was no recurrent exostosis found. Management: We reported one case of a 28-year-old woman with a diagnosis of sinonasal exostosis which extends to oropharynxthrough choana and has been manage by extirpating the mass withintranasal endoscopic approach and transchoana. After six months follow up with nasoendoscopic assessment there was no recurrent exostosis found.management in medical treatment. Nasal exostosis is extremely rare cases with unclear pathophysiology. Diagnosis was determined on anamnesis, physical examination, investigations findings such as computed tomography and histopathologic examination as a definitive diagnostic and management of exostosis is extirpation with endoscopic guidance.

Keywords: Nasal Cavity, Exostosis, Diagnosis, Management

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INTRODUCTION

Exostosis is defined as a benign growth of bone tissue that protrudes out of the re-surface marked by the closure of the bulge by the cartilage. These lesions are benign with varying shapes and sizes. Exostosis can grow on all bones. In the area of ENT-HN this condition is often found in the area of the palate, maxillary, mandibular and ear canal. Paranasal sinus Exostosis is a rare case whereas in the cavity of nasal has never been reported [1-3]. The causes and mechanisms of paranasal sinus Exostosis remain unclear. Several factors are suspected predisposing to the growth of Exostosis in paranasal sinus, such as genetic and environmental factors. Paranasal sinus exposure appears to be suspected as a complication of cold saline fluid therapy routinely and in the long term after nasal or paranasal sinus surgery. Exostosis of the ear canal is common in water sports players such as surfers, divers. The presence of exposure to air and cold water to the ear canal continuously in the long term is suspected as the cause of ear buds Exostosis. Adelson R *et al.,* declared a condition similar to that in patients with burrow Exostosis, in example the administration of cold fluid as rinosinusitis therapy or postoperative sinus paranasal continuous in the long term can stimulate the development of Exostosis. Ramakrishnan et al describes the similarity of histopathologic findings of Exostosis in paranasal

sinuses with ear canal Exostosis [4-7]. The lesion is a slow growth benign lesion that rarely leads to complaints. Paranasal sinus exostosis usually has complaint due to sinus obstruction itself. In the description of computer tomography Exostosis looks like excessive multifocal bone growth [5, 8].
Management of paranasal sinus exostosis is an extirpation with endoscopic approach and administration of warm irrigated fluid. Patients need to be given education in the use of irrigated fluids and routine controls after surgery. Follow up include nasoendoscopy and radiographic examination. It is done to see the re-growth of the Exostosis itself. A good handling of paranasal sinus exposure is postoperative education and follow-up to avoid excessive surgery [4, 7, 9]. Exostosis is often found in the mandibula, maxilla, palate and ear canal. The incidence of Exostosis on the mandibula and palate is about 5-40%, at the ear about 6-7%. Exostosis in paranasal sinus is rare, and until now the authors have not found a report on the incidence of Exostosis in the cavity of nasal. Paranasal sinus Exostosis occurs suspected as a result of environmental circumstances and exposure similar to Exostosis of the ear canal.Ramakrishnan *et al.,* reported about 6% found patients suffering Exostosis of the ear canal. Haffey *et al.,* conducted research from 2005 to 2011 and found six cases of paranasal sinus exostosis. Prevalence increases in the third and fourth decades and more often in men than women. Kroon DF et al declare an interval between surgery with the first discovery of paranasal sinus expostosal analogue with Exostosis burrow ears on surfers, where the risk increases by about 12% each year of exposure [7, 9-11]. Etiopatogenesis paranasal sinus exposure is still not fully explained. In the Exostosis of the ear canal (Surfer's ear), the long-term recurrence of recurrent cold water exposure to growth of Exostosis is suspected as a responsible mechanism. A similar mechanism develops in the paranasal sinuses after endoscopic sinus surgery. Although nasal irrigation is usually recommended as a medical management of chronic rhinosinusitis and postoperative nasal or paranasal sinuses. After sinus ostium surgery is enlarged to allow for increased ventilation and paranasal sinus drainage. This large sinus ostium condition causes the isotonic saline fluid to enter into the sinuses significantly compared to the unoperated. Although the recommended liquid temperature is room temperature, but patients usually use cold temperatures. This is because the storage of isotonic fluid is usually done in the refrigerator. The presence of cold-isotonic fluid penetration into the sinus allows penetration of large volumes of salt with resultant bone produced similar to lesions in the ear canal [9, 12, 13]. Radiographic findings show different variations in the features of benign osteoneogenesis lesions with inflammatory responses.

CASE REPORT

A 28-year-old woman with a job as a nurse came to the ENT-KL clinic. Mohammad Hoesin on April 28, 2013 with complaints of nasal congestion, especially the right nasal cavity since 3 months ago the longer the more severe. Patients often sneeze in the morning. Snoring history exists, Exit dilute nasal fluid disappears. Sense of throat in throat exists. Sufferers complain his voice is nasal and like rinsing since 4 years ago. Blood out of the nose, cheek or forehead pain is refuted. No swelling on the face or cheeks. Missing vision. Ear complaints are denied. A history of having a nose or paranasal sinus surgery is denied. A routine and long history of spraying of the nasal sprays is denied. The history of cold saline fluid as a nasal washing routinely and in the long run is denied. The history of frequent sports related to cold water exposure is undeniable.

One month before the patient went to a private hospital and performed radiological examination of paranasal sinus computer tomography. Patients were diagnosed with right sinonasal mass and suggested to refer to RS Dr. Mohammad Hoesin. From a physical examination, both ears are within normal limits. External nose examination no deformity, no infraorbita tenderness, airflow test looks air flow cavity no right nasal was left there. In anterior rhinoscopy the masses appear in the right pink colored cavity, smooth surface, not easily bleeding, hard. Septum deviation does not exist. In the throat appears diorofaring mass pink, pale, smooth surface, not easy to bleed, hard. The symmetric pharyngeal arch, the uvula in the middle, the T1-T1 tonsils are normal.

In pre-existing investigations, computer tomography of the sinus paranasal coronal cuts obtained a mass impression on the right nasal cavity extends into the oropharynx density of suspicious bones of an osteoma. Date 29 April 2013 laboratory tests and plain chest photographs are obtained within normal limits.

Figure 1: Mass in Cavum Nasal and Orofaring

Figure 2: Computer Tomografi sinus paranasal coronal section.

Patients are diagnosed with right sinonasal mass extending to the koana and planned extirpation with endoscopic guidance. Conducted informed consent and the patient agreed then performed consul anesthesia. Anesthesia consultant results obtained ASA 1 agree action anesthesia. On May 2, 2013 a right sinonasal mass extirpation action was performed with endoscopy guidance in general anesthesia. After the aseptic and antiseptic action and the installation of sterile duk in the operation area, the installation of epinephrine tampon in both cavity of nasal. Tampon is removed then identified the right nasal cavity, visible pink mass, smooth surface, rather hard, not easy to bleed. Injection of epinephrine lidocaine in the area of the processus unsinatus, inferior konka media and konka inferior. Next done unsinektomi. There is a mass rod on the inferior region of the media conjunction. The mass is separated from the surrounding tissue bluntly and traced to the coana. Identify the mass in the oropharynx. Mass is wholly dissolved in relation to the order they are encouraged by the precursor of the vehicle so that the mass is lifted in toto through the oropharynx. It is found a pale white mass such as gelatin, slippery surface, hard consistency. Then performed antrostomy and sinuscopy, not appearing to be the maximum of the maxillary sinus, mukosabaik. Bleeding was overcome by the installation of 5 antibiotic tampons in the right nasal cavity.

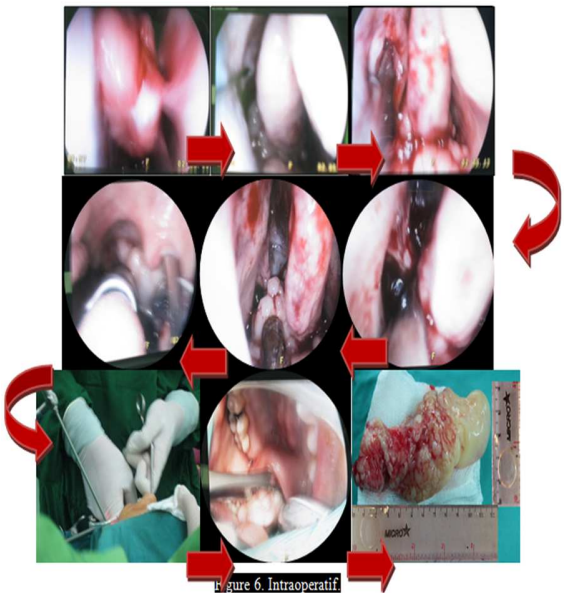

Figure 3: Step of Operation.

After the surgery is completed the tissue is examined in the Anatomical Pathology section. Patients were given intravenous 2 x 1gram ceftriaxone therapy, intravenous 3x500mg tranexamic acid, ketorolac 30mg in 500cc ringer lactate fluid. May 3, 2013 got nasal voice complaints and gargling reduced, no bleeding, no pain. Performed removal of partial nasal tampon, active bleeding is absent, therapy is continued. May 4, 2013 complaint is not there, carried out the nasal tampon entirely, the evaluation of bleeding is absent, the right air passage is the same as the left, and the nasal sound is reduced. Patients are allowed outpatient and given 2x500mg sefadroksil, diclofenac 2 x 50 mg potassium and physiological saline solution nasal spray 3 times a day and educate how to use and penyimpana nasal spray saline solution. The date of 11Mey 2013 control patients to the RSMH ENT clinic, no complaints, nasal sound or like gargling does not exist, no snoring complaints. From anterior and posterior rhinoscopic examination, the mucosa is obtained, the air passage is good. Administration of physiological saline nasal spray solution is continued until good mucosal epithelialization. The results of anatomical pathology dated May 12, 2013, obtained a network of polypoid forms coated with epic columns epileptic ciliated epilate, found trabecula-trabecula bone, impression Exostosis on the right rice cavity. At this time the

patient's condition is good, no complaints. At this time the patient's condition is good, no complaints.

Figure 4: Cavum Nasal and Orofaring Post Operatif

DISCUSSION

There is one case of Exostosis of cavity rice in Dr. Hospital. Mohammad Hoesin until August 2014 on a woman. Exostosis can occur anywhere. The incidence rate of Exostosis on the mandible and palate is about 5-40%, at the ear about 6-7%. Exostosis in paranasal sinus is uncommon and in rice cavity has not been previously reported Patients come to the ENT clinic with nasal congestion complaints since 3 months, especially the right rice cavity that is getting heavy with nasal voice and snoring history for 4 tahun.Exostosis grow slowly and usually multiples and not pain so asymptomatic. If the lesion is large then it can cause obstruction or blockage and hit the surrounding area. Haffey and Schwartz K reported paranasal sinus exostosis in patients with previous surgical history, in which patients received nasal irrigation therapy using cold fluid for long-term postoperative therapy. Handley explains the patient with Exostosis may be accompanied by a history of developing a polyp of nasi [4, 5, 9]. In anterior rhinoscopy the pink, pale, smooth surface, not easily bleeding and palpable hard on the right rice cavity extends into the oropharynx. Ohba *et al* describes the difficulty of making a clinical diagnosis of clinical sinus paranasal Exostosis because the lesion is asymptomatic, requiring endoscopic examination. On examination of anterior rhinoskopi and nasoendoscopy, Exostosis may appear as a multiple cyst or solitary mass, hard but firmly palpable when palpated and may be accompanied by extensive polyps [5, 9, 16]. Examination of paranasal coronal sinus tomographic computer tomography, obtained radiographic mass image with density such as bone in the right rice cavity extends into the suspicious oropharynx of an osteoma. Adelson R and Schwartz K summed up a computer tomography picture of an Exostosis in the form of a spherical mass with solid consistency and radioopak with bone-like density. Sometimes the picture of this lesion on computer tomography appears as an excessive multifocal bone growth or as the foci of small bone tissue growth on the lumen surface of the affected sinus [4, 6, 14]. No history of previous nasal or paranasal sinus surgery is observed, nor is the use of cold fluid as a routine nasal or paranasal sinus in the long term. So in this case do not know the possible etiology of Exostosis cavity of rice. Haffey et al reported 6 cases of etmoid and maxillary exostosis, all patients having had paranasal sinus surgery where none of these lesions had been found before endoscopic and radiologic and asymptomatic examinations, all received long-term saline irrigation therapy stored in the refrigerator. Adelson R et al also found the same case. The researchers concluded that the cause of paranasal sinus exostosis is most likely due to cold exposure to mucosal and periosteum sinus open postoperatively. While Borie *et al,* studied a case of maxillary exostosis in which the patient had no previous history of sinus surgery nor did nasal and sinus irrigation [6, 9, 17]. Diagnosis in this case can be established after postoperative histopathological examination. This is in accordance with the literature where investigations such as computer tomography and nasoendoscopy play an important role in making the diagnosis. While for the diagnosis must be established by postoperative histopathological examination [7, 16, 22]

Adelson R *et al.,* stated that paranasal sinus Exostosis rarely gives clinically significant symptoms and does not cause obstruction. In many cases, only routine clinical examination is needed to control the development of this lesion. However, in cases where the size of the Exostosis is large and causes obstruction, surgical action is required [5, 6, 23]. Postoperative patients underwent periodic endoscopic examination to assess patency and mucosal layers of the media and sinus mucosa and overcome any symptoms or complaints so as to prevent recurrence [6, 9, 17].

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