



Maxillary cyst pathological analysis and the ideas of non-surgical drug treatment

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ABSTRACT

To analyze the nature of maxillary cysts and non-surgical treatment options ideas from the part of pathological. Methods: According to the cites of different cysts , 34 cases of maxillary sinus cysts were divided into three parts to receive different surgical operation treatment based on natural caliber Road, inferior meatus window pathway, the maxillary sinus approach, and the cysts were inspected by pathological analysis. Results: the pathological results: Among the 34 cases pathological examination, 30 cases were diagnosed as mucous cyst, and the others were retention cysts. Conclusions: the analysis of pathological method after the maxillary cyst operations provides new innovations and ideas for drug of choice for non-surgical treatment.

Key words: maxillary cyst; pathology; non-surgical; ideas

INTRODUCTION

Among the sinus cyst, Mucus is the most common ones as the sinus secretions accumulates after the Sinus openings were completely blocked. Once the Sinus openings were completely blocked, sinus cavity secretions would accumulate, and the secretions protein content would become much higher than before, as the reasons of Osteoclasts are activated by prostaglandins, lymphocyte activating factor, and parathyroid hormone resulting in thinning or disappearance of bone resorption[1], non-surgical therapy was chosen to understand the pathology of the maxillary sinus cyst mostly, and provide topical ideas and methods, we have 16 cases of maxillary cysts after surgery pathological analysis, the preliminary report is as follows.

Information's and methods

1. general information

This group consists of 34 samples, All patients suffered from antracelle were treated in our hospital from 2009 to October 2012. Among these, 22 samples were male, while 12 samples were female. Ages ranged from 12 to 46 years old, average(25.2±2.2) years old. 30 samples were unilateral disorder, while 4 samples were bilateral disorder. 26 samples had clinical history of headache, fullness in the head, blurred vision and so on. 4 samples have no symptoms. It was ensured by conventional Sinus Coronal CT scanning.

2. diagnostic criteria

(1) Mostly be observed in unilateral maxillary sinus (2) Symptoms were accompanied with headache, swirl, fullness or discomfort in cheek, sometimes coupled with light yellow liquid overflowed from nose at intervals. (3) light

yellow liquid overflowed when maxillary sinus were punctured. (4) Clear half-moon-shaped protuberant shadows could be observed in unilateral maxillary sinus boundedness boundary by CT.

3. surgical methods [2]

3.1 There were 12 patients used the natural maxillary sinus caliber road: the patients are supine to having an operation under local anesthesia. After anesthesia satisfaction, the uncinate processes was resected with expanding sphenoid sinus ostium, and then observed the size, location of the cyst and maxillary sinus by endoscopy. Choose the fit long mucosa clamp to remove the capsule wall of cyst; meanwhile, the mucous cyst root should be cleared by suction curettage while keeping the normal mucosa.

3.2 The 8 patients are using the pathway of Inferior meatus fenestration: the patients are in supine position under the local anesthesia. After patients anesthetized, the inferior turbinate is folded up and the lateral wall of the nasal passages is opened at next bone fenestration (diameter of about 2.0×1.5cm), so that nasal and sinus are interlinked. Cautious: the position of aperture can not be too backward to avoid injury lateral nasal artery. Between outer sidewall the lower nasal passages and the front of the inferior turbinate (1.0cm), trocar is penetrated the maxillary sinus wall entering the maxillary sinus cavity, and then the fenestration part is expanded to 1.0-1.5cm with a rongeur and cleaned at the base of cyst. In addition, if the cyst is too large, it can be reduced the volume by paracentesis. As much as possible normal and reversible mucosal tissue should be reversed, when you use a knife to scraping or cutting the diseased tissue. For example, combine with other nasal sinus disease, septal plasty or open ethmoid sinus surgery in the same period.

3.3 In addition, there are 14 cases of patients adopted maxillary anterior pathways: under the block anesthesia, maxillary vestibule ditch served as an incision. Expose the canine fossa, then scuttling maxillary anterior bone, and opening a small hole which the diameter is approximately 1.5×1.5cm. Clear the cyst under endoscopic, suck out the cyst fluid, and retention sinus mucosa carefully. Meanwhile, unplug the corresponding lesions teeth of the patients whose tooth root has cyst, regard the opening of inferior nasal meatus as a drainage port.

4. Pathological Analysis: 34 cases of pathologic findings have been taken pathological examination, among them, there are 30 cases of mucinous cysts , 4 cases of retention cysts.

RESULTS AND DISCUSSION

1. Cyst pathological analysis of maxillary sinus: The formation of mucus gland cyst most is due to mild inflammation of sinus mucosa mucus gland or gland nozzle clogging mucus accumulation lumens caused by allergy. The cyst wall is the mucus gland epithelium. Although such cysts can occur in any part of the sinus cavity, more at the bottom of the maxillary sinus or wall mucus gland cyst growing slowly, grow up to a certain degree the stop developing, or on their own burst to the nasal cavity drainage, out of yellow liquid. So don't make the sinus cavity expands and the wall of bone absorption and damaged. But it is easy to recurrence. Serous cyst is also called water cyst or blood extravasation cyst. Reasons for the formation probably are due to inflammation or allergic sinus mucosal changes in capillary penetration, plasma extravasation, accumulation in the poor connective. No obvious capsule wall skin. Because of the gender cyst fluid was plasma, non sticky. Do not contain cholesterol clefts, rest for a while is easy to set[3].

Pathology pathological analysis of maxillary sinus cyst diagnosis is rare uniform classification. Retention cyst, inflammatory pouch swollen, simple cyst, truecyst, mucous cyst is common. This study pathological slice through unified analysis, with reference to their cytology characteristics, divided into the following two categories. Mucous cyst wall was covered ciliated columnar epithelium, which containing goblet cells. Epithelium, the same as the strucyure of maxillary sinus mucosa is loose fibrous tissue and salivary gland tissue, scattered with lymphocytes and plasma cells infiltration, a few eosinophilic leukocyte infiltration. Retention cyst wall is coated by columnar epithelium or cuboidal epithelium, apocrine, lumen contains mucus, under the epithelium of fibrous tissue and small salivary gland tissue. Yin Zhaofu, Wang Xinmei, Mu DaNian,et al; Henan journal of diagnosis and treatment, 10 (4), 1996

2. The current problem that Maxillary cyst surgery facing : Although endoscopic surgical techniques are more common , but there is more sufficient to remove Cyst expanding the Maxillary sinus after removal of uncinate[4], but it destroys the normal structure and function of maxillary sinus and ignores the structure - symptoms – function relations, the removal of uncinated and expanding of Maxillary sinus will inevitably result in directly invasion of harmful substances into the maxillary sinus , under normal circumstances, the surface cilia of sinus mucosal displays the star sports upward from the bottom ,towards the direction of the mouth . The cilium around maxillary sinus has the most powerful movement ability. Full expansion of the natural ostium also means the loss of the natural sinus

ilia, leading to the difficult expel of maxillary sinus secretions, bacteria in the air and other allergens, which causes maxillary sinus infection[5]. Remove the expansion of the maxillary sinus maxillary sinus cyst will reduce the concentration of NO, on the presence of NO in human maxillary sinus, higher concentrations of NO in maxillary sinus plays an important role in prevention from infection! The concentration of NO resistant to infection decreases decreased with the air overflow cause the oversize of maxillary sinus. Thus the oversized maxillary sinus opening makes a reducing of NO concentration and ability of anti-inflammation[6].

3. The ideas and methods of choosing maxillary cyst drug for non-surgical: If we can use non-surgical treatment to cure maxillary sinus cyst, which relieves the discomfort and pain brought by maxillary cyst, without affecting the composition of the local and surrounding tissue function. We initially identified based on years of clinical experience in the use of iodine and other preparation composition, according to the anatomic site of maxillary sinus cyst, we choose 3 kinds of puncture ways from sinus, inferior nasal labial gingival sulcus to the site of cyst, respectively. The cyst fluid was extracted, and then depending on the number of cyst fluid, injected it into chamber by a certain percentage of non-surgical treatment for cysts. Iodine belongs to the VIIA group elements, the sequence number is 53 in periodic table.

CONCLUSION

In 1811, Kurt, a French pharmacist, found the elemental iodine for the first time. I₂ and KI tincture of iodine is a mixture of the free state of iodine and alcohol. The principle of its sterilization effect is still the free state of iodine atoms super oxidation. It can destroy pathogens of cell membrane structure and the protein molecules. No matter for the fungi and protozoa, and viruses, bacteria, spores, iodine has strong sterilization effect. Iodine ion composition and penetration hypha rapidly to the substrate layer is damaged, shrinking focal necrotic tissue loss. Collagen fibers increased numerous repair, make its scarring or restoring a set of transparency[7]. But, owing to strong oxidative activity, it can cause burn injury of skin tissue. The theory of disinfection to iodine is that the free iodine atom has significant oxidative activity, damaging the structure of Pathogen cell membrane and. Use the mixture of iodine and alcohol to damage cell membrane structure of antracole and protein molecular, lowering its significant oxidative activity. Preliminary clinical application could relieve patients' pain, low cost; improve working efficiency and quality of life, easy operation, high curative effect, has wide prospects. For these advantages, it has been applied for a patent of State Intellectual Property Office of P. R. C. playing a Positive role to treat antracole in non-operating way.

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