

# Exudative Otitis Media - Early Symptom of Junior Nasopharyngeal Angiofibroma

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**Abstract:** Exudative otitis media is a polyetiological disease, often caused by a combination of several causal factors. For tumors located near the pharyngeal opening of the auditory tube, ear and auditory tube symptoms may be early manifestations.

In this article, we present a clinical case of a 14-year-old patient, where exudative otitis media is an early symptom of juvenile nasopharyngeal angiofibroma.

**Key words:** exudative otitis media, juvenile angiofibroma, ear symptoms.

## Introduction

Nasopharyngeal angiofibroma, also known as juvenile nasal angiofibroma, is a histologically benign but locally aggressive vascular tumor of the nasopharynx that arises from the superior margin of the sphenopalatine foramen and grows in the back of the nasal cavity. It most commonly affects adolescent males (because it is a hormone-sensitive tumor). Though it is a benign tumor, it is locally invasive and can invade the nose, cheek, orbit (frog face deformity), or brain. Patients with nasopharyngeal angiofibroma usually present with one-sided nasal obstruction with profuse epistaxis.

## Conclusion.

The above observation confirms the need for a detailed examination of the nasopharynx in patients with exudative otitis media.

**Relevance.** Exudative otitis media (EMI) is a polyetiological disease, often caused by a combination of several causative factors [8]. The impact on the mucous membrane of the middle ear is not only infectious factors, but also physical (changes in barometric pressure), chemical (gastroesophageal reflux) and biological (nasopharyngeal tumors), and especially their combination leads to the development of ESO [1].

It is known that in patients with ESP, special attention should be paid to the state of the pharyngeal opening of the auditory tubes and the anatomical structures bordering on this area, since it is their pathological changes that most often lead to the development of the disease [3,6].

Obstructive dysfunction is the most common cause of ESP. It may be due to mechanical impairment of the patency of the auditory tube due to benign and malignant neoplasms of the nose, paranasal sinuses and nasopharynx [3,4,7].

With tumors located near the pharyngeal opening of the auditory tube, early manifestations can be symptoms from the ear and the auditory tube: hearing loss, ear pain, tinnitus, recurrent otitis media [2,9,10]. Sushko Yu.A. et al. (2010) describe patients with unilateral ESO who have a nasopharyngeal tumor. The only complaint in all of these patients was unilateral hearing loss and tinnitus. All this suggests that otological symptoms, in particular the accumulation of exudate in the tympanic cavity, are often the earliest signs of nasopharyngeal tumors, including juvenile nasopharyngeal angiofibroma [5].

The combination of subjective and objective signs makes it possible to suspect a pharyngeal neoplasm in most patients. In connection with the above, the development for practitioners of the shortest and most optimal clinical trial schemes for making a diagnosis and target referral to a specialist would significantly reduce the time from the first visit to the beginning of special treatment [3,4,11].

From our own observations, we give an example of exudative otitis media in juvenile angiofibroma of the nasopharynx. Clinical observation. Patient N. 14 years old, case history No. 7671/611 was admitted to the clinic with complaints of hearing loss in both ears, mainly on the left, difficulty in nasal breathing, nosebleeds.

Patients consider themselves more than 2 years old, when he began to notice hearing loss in the left ear. I went to the doctor at my place of residence. Treatment was prescribed for acute catarrhal otitis media. The hearing improved for a short time. But after a few weeks, hearing deteriorated again, after an audiological examination, a diagnosis of exudative otitis media was made. Appropriate treatment was prescribed. In addition, the patient began to notice a decrease in hearing in the right ear and difficulty in nasal breathing.

8 months after hearing loss in the left ear, nosebleeds appeared. After that, he was sent for a consultation at the clinic.

Since childhood, he was prone to colds, often had runny nose. I have never been treated in a hospital.

During examination in the clinic, hearing in both ears is reduced, more on the left by the type of sound conduction disorder (conductive hearing loss II degree), tympanometry data - type "B". The external auditory canals are free. AD - the tympanic membrane is retracted, the light cone is absent. AS - the tympanic membrane is dull gray, bluish in color, congestive hyperemia and impaired mobility of the tympanic membrane, smoothness of the identification points, the level of fluid in the tympanic cavity are noted (Fig. 1).

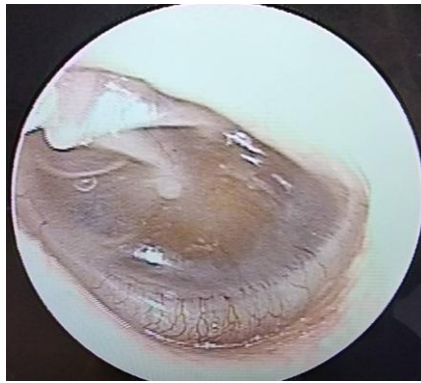


Fig. 1 Otoscopic picture of exudative otitis media

Breathing through the nose is difficult, more through the left side of the nose. The nasal passages are filled with mucus. The posterior parts of the left half of the nose are obturated with cyanotic lumpy tissue. With a digital examination of the nasopharynx, a dense, immobile tuberous formation is palpated. With posterior rhinoscopy, the nasopharynx is occupied by a cyanotic formation. The left choana is completely covered, the right half. Nasopharyngeal fibroendoscopy revealed an asymmetric infiltrate in the left nasopharynx region with a small tuberous surface.

In connection with the detected changes in the nasopharynx, the patient was referred for CT. A series of computed tomograms revealed a tumor of the nasopharynx with spread into the nasal cavity, orbit, pterygomandibular fossa, with destruction of the wing of the main bone (Figure 2).



Fig. 2 Computer tomogram of patient N., tumor of the nasopharynx

The patient was successfully operated on. The result of histological examination No. 0061/67 angiofibroma of the nasopharynx (Fig. 3).

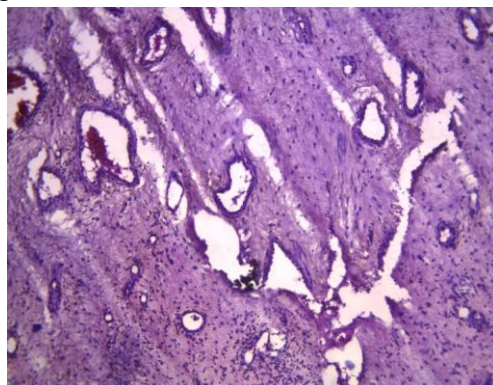


Fig. 3 Microdrug juvenile angiofibroma  
(staining with hematoxylin-eosin, magnification x160)

**Conclusion.** Our studies have shown that exudative otitis media occurs already in the early stages of juvenile nasopharyngeal angiofibroma. Therefore, we believe that in patients with long-term dysfunction of the auditory tube, it is necessary to conduct a detailed examination of the nasopharynx, since tubular dysfunction can be one of the earliest, sometimes the only symptoms of such a formidable disease as juvenile angiofibroma of the nasopharynx.

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