

The main steps in treatment of the children with otitis media with effusion

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INTRODUCTION:

- The frequency of occurrence of otitis media with effusion (OME) in childhood does not tend to decrease. Accompanying this pathology, hearing loss in younger children can cause a delay in speech development. The main mechanism of the disease development is the dysfunction of the auditory tube (ET), which can be obstructive (more than 90% of cases) and dynamic. Patients with congenital cleft lip and palate (VRGN), as well as patients with Down syndrome, are particularly difficult to treat.

PURPOSES:

- Conservative treatment at the same time has extremely low efficiency, and the main way to solve the problem is surgical. The range of OME interventions has expanded in recent years due to the active introduction of a minimally invasive technique – balloon dilation of the auditory tubes.

Materials & methods:

- 147 patients with OME aged 2 to 18 years were examined and treated, 17 (11.6%) patients with VRGN, 6 (4.1%) - Down syndrome.
- The survey methods included: instrumental examination, endoscopic examination of the nasal cavity and nasopharynx, otoendoscopy, audiometry, acoustic impedance measurement, multispiral computed tomography of the temporal bones before balloon dilation of the auditory tubes.

Nasopharyngeal endoscopy allows:

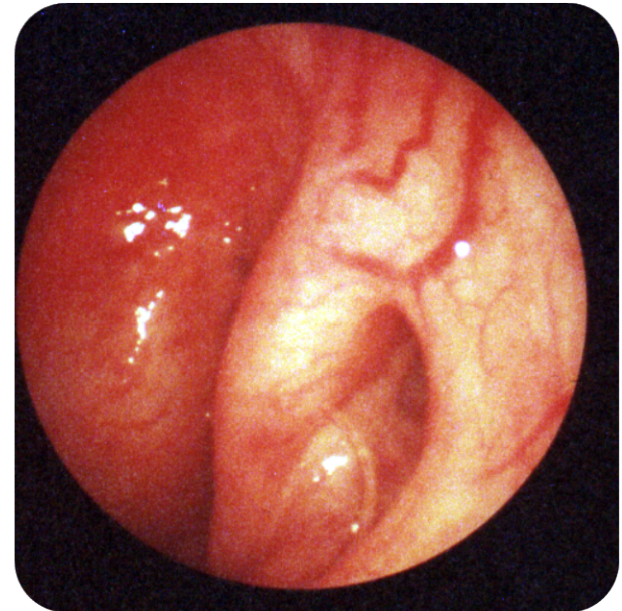
Assess the condition of the nasal mucosa

The presence of pharyngeal tonsil hyperplasia

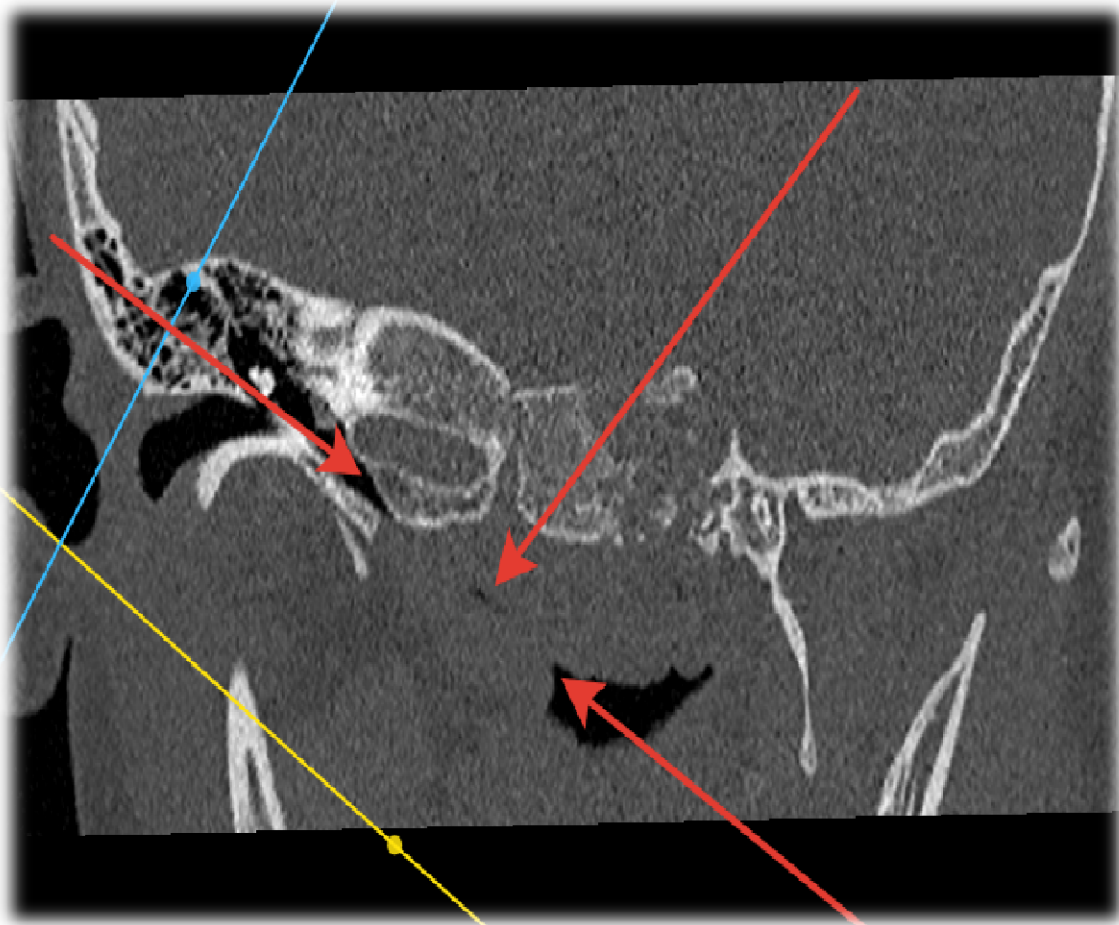
Type of tubar rollers

Pharyngeal mouth condition ET

The presence of a pathological discharge, its nature



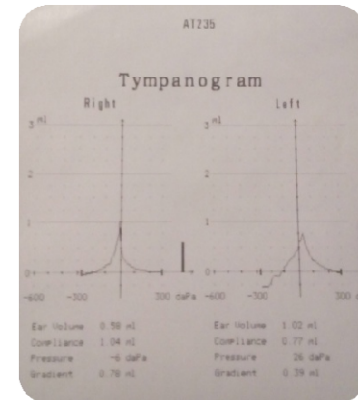
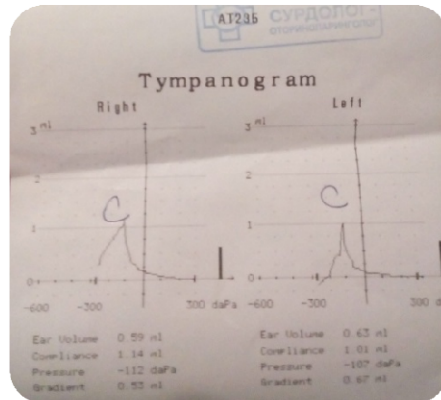
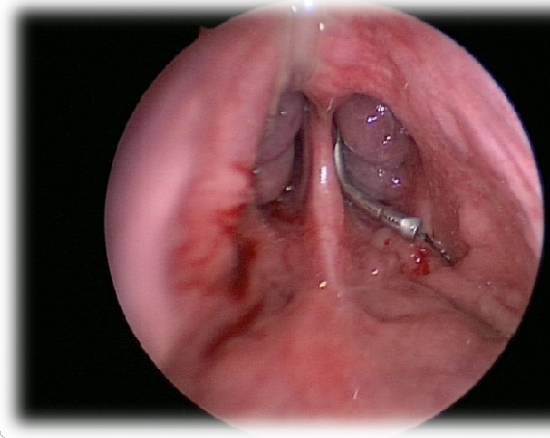
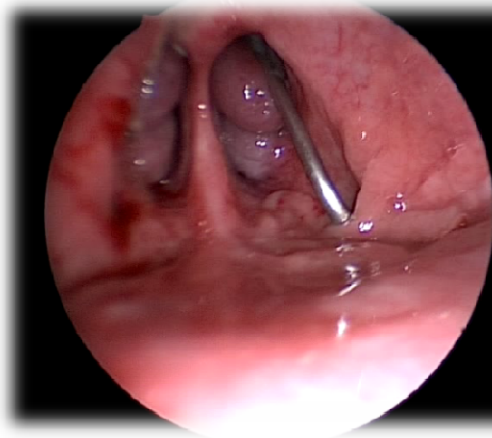
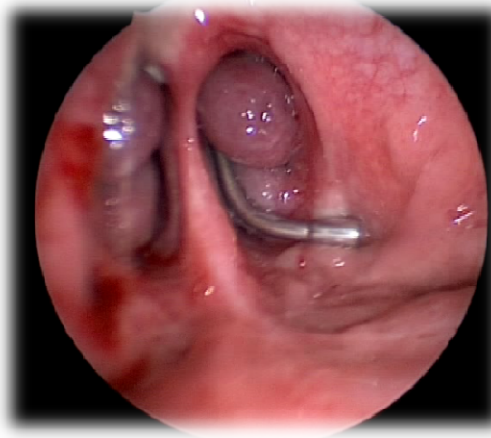
cone-beam CT of temporal bone



RESULTS:

- Standard surgical care in the volume of adenotomy or tympanostomy, or a combination of adenotomy with tympanostomy was provided to all patients, 113 (76.9%) achieved stable remission.
- 34 (23.1%) patients with recurrent OME underwent balloon dilation of the auditory tubes in combination or without tympanostomy.

Stages of balloon dilation of the auditory tube



The effectiveness of balloon dilation

- After 12 months in 22 (64.7%) children the indicators of clinical and audiological examination returned to normal (tympanogram type "A"), among them 3 patients with VGRN, 1 - Down syndrome
- In 4 children (11.8% or 2.7% of the total number of children included in the study) the measures carried out were ineffective, among them 1 -with VGRN, 1 - Down syndrome. The remaining 8 patients (23.5%) had functioning ventilation tubes at the time of observation.

CONCLUSION:

- Balloon dilation of the auditory tube in children with persistent ET dysfunction and OME is a highly effective and safe method of treatment especially in patients with relapse of pathology after standard treatment methods
- Of great interest is a group with anatomical features with ET function disorders. A small volume of observations among patients with VGRN and Down syndrome requires further clinical research work to clarify the positive results obtained