

174. DIFFICULT CASES OF COCHLEAR IMPLANTATION

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Background. Currently there is a tendency to addition of cochlear implantation indications (CI) in patients with inner and middle ear malformations, cochlear ossifications and Meniere's disease. Also, CI after canal wall down mastoidectomy is difficult clinical case in ear surgery.

Aim. Improve postoperative auditory performance of patients with profound sensorineural hearing loss (deafness), and complicated pathology of the inner or middle ear through the optimization of cochlear implantation surgical tactic.

Materials and methods. 42 patients with profound sensorineural hearing loss who underwent CI were analyzed. Cases were divided into four groups: 12 patients with cochlea ossification after meningitis (group 1), 19 patients with inner ear malformation (group 2), 9 patients underwent canal wall down mastoidectomy (CWDM, group 3) and two patients with Meniere's disease (group 4). Surgical techniques differ depending on the pathology. In all cases were performed intraoperatively implant telemetry and stapes reflex registration. Postoperatively the mastoid cavity was controlled.

Results. Stapes reflex was registered intraoperatively in 8 patients of the first group. Number of input electrodes depended on the degree of cochlea ossification and the type of inner ear abnormality. The CSF leak occurring in 10 cases of inner ear anomalies was successfully repaired and completely stopped. The using of proposed CI technique in patients after canal wall down mastoidectomy gives good results of performed cavity healing, no cases of electrode extrusion or protrusion in the long term follow up period. Patients with Meniere's disease and bilateral sensorineural hearing loss who underwent simultaneous operations (endolymphatic sac drainage and cochlear implants), showed satisfactory results audioverbal rehabilitation and marked decreasing of vestibular symptoms.

Conclusion. Using the proposed surgical techniques allow to maximal electrode insertion into malformed and ossified cochlea. The performed tunnels and cartilage electrode covering in postoperative cavity of patients after CWDM prevent cases of extrusion and protrusion of the electrode. Simultaneous CI and endolymphatic sac drainage gives a good results in patients with late stage Meniere's disease and profound bilateral sensorineural hearing loss

Key words: cochlear implantation, inner ear malformations, cochlear ossifications, Ménière's disease, tympanomastoidal cavity

175. DIAGNOSIS AND TREATMENT ALGORITHM FOR INFLAMMATION OF THE RHINOSINUSOTUBAL AREA

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Introduction: Inflammation of rhinosinusotubal area is a clinical situation, characterized by inflammation in the paranasal sinuses, nasal cavity, nasopharynx and Eustachian tube, in which dripping of infected discharge from the nasal cavity towards the Eustachian tube leads to the inflammation and obstruction of the latter. This complex of symptoms significantly impairs the quality of life. That's why it is so important to improve diagnostic methods and develop a treatment algorithm for such simultaneous pathology of the paranasal sinuses and Eustachian tube.

Material and methods: A total of 27 patient (19 women, 8 men), aged from 34 to 55 years, were enrolled in our study. Main complaints were prolonged autophony and hearing loss (10 days and longer), which did not improve after the standard treatment. All patients underwent the following examination: ENT examination, rigid endoscopy of the nasal cavity and nasopharynx by endoscopes 0 and 30 grade, cone-beam 3D Sirona middle and upper faces areas to examine the condition of paranasal sinuses and audiological assessment (pure tone audiometry, tympanometry).

Results: After a thorough examination of patients we found that all of them had different forms of sinusitis. Acute bilateral sinusitis was diagnosed in 56% of patients, 34% - had acute unilateral sinusitis and the last 10% - hemisinusitis. According to the results of pure tone audiometry 78% of patients had insignificant hearing loss, 10% had 1-2 grade conductive hearing loss, 12% had mixed hearing loss 2-3 grade with prevalence of conductive component. According to the study results we developed a diagnostic and treatment algorithm for the inflammation of rhinosinusotubal complex.

In addition to standard diagnostic methods it is necessary to use: plain X-ray or cone-beam computed tomography of the paranasal sinuses, audiological examination (pure tone audiometry, tympanometry), endoscopy of the nasopharynx. The treatment should include drainage of involved sinuses and restoration of the Eustachian tube function. This can be achieved by maxillary sinus puncture with instillations of antibacterial solutions and Eustachian tube catheterization. Pathogenetic treatment with mucoactive drugs, including herbal remedies, elimination therapy and hyposensitizing drugs for mucociliary clearance improvement is also of a great importance.

Conclusion: We recommend the use of plain X-ray or computed tomography of the paranasal sinuses for all patients with inflammation of rhinosinusotubal area to exclude possible "covert" sinusitis.

Keywords: Inflammation of rhino-sinostubal area, diagnosis and treatment, algorithm.

176. EARLY CLINICAL RESULTS WITH THE CORTICAL BONE TRAJECTORY PEDICLE SCREW FIXATION OF THE LUMBAR SPINE, USED FOR THE SURGICAL TREATMENT OF THE DEGENERATIVE SPONDYLOLISTHESIS

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Introduction: Low bone mineral density in patients undergoing lumbar spinal surgery with screws is an especially difficult challenge because poor bone quality can severely compromise the