

The Soft and Hard Palate Cleft's Impact on the Auditory Tube Function

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Abstract : One of the most widespread facial bones' malformations - the congenital palatoschisis - significant impact on drainage and ventilation of the middle ear through the incorrect work of soft palate muscles, which results in recurrent middle ear inflammation and subsequently leads to the hearing dysfunction. The purpose of this research is to evaluate the auditory tube function and hearing condition before the operative treatment (uranoplasty) and after 3 and 12 months. 42 patients aged from 6 months to 17 years who had soft and hard palate cleft and B and C type tympanogram were included in that study. The examination includes otoscopy, pure tone audiometry (for patients older than 8 years - 11 patients), tympanometry. According to the otoscopy results all the patients were divided into two groups: those who had a retracted eardrum and those who had a normal one. The results of pure tone audiometry showed that there were six patients with an air-bone gap of more than 10 dB and the five with normal audiograms. According to the results of this research, uranoplasty demonstrated strongly positive effects on the auditory tube function: normalization of eardrum view upon otoscopy was observed in 64% of children with a retracted eardrum three month after surgery and 85 % twelve months. The quantity of patients with A-type of tympanogram improved in 25 children out of 41 in 3 month and in 35 out of 41 in twelve months after operation. While before the operative treatment, six patients older than 8 years had had an air-bone gap of more than 10 dB; only two of them still had it in 12 months, and the others' audiograms were normal. To sum it up, the uranoplasty showed a significant contribution in the restoration of auditory tube functioning. Some patients had signs of auditory dysfunction even after the operative treatment. That group of children needs further treatment by an otorhinolaryngologist.

Keywords : auditory tube dysfunction, palatoschisis, uranoplasty, otitis

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