Summary

The cartilage has been successfully used in reconstructive ear surgery for more than one hundred years. Histologic study of autografts cartilage (tragal or conchal) showed good long-term preservation of cartilage cells. The aim of this paper is to assess the hearing results in tympanoplasties with the use of cartilage palisade technique. **Material and methods:** The retrospective analysis concerned 108 operated clinical cases. The cartilage palisade technique was performed in 28 tympanoplasties type I, 47 tympanoplasties type II, 21 tympanoplasties type III with columella and in 2 tympanoplasties type IV. Clinical assessment included otoscopy, test for eustachian tube ventilation, test with tuning fork, audiometry on a range 0,5, 1, 2 kHz and subjective evaluation based on questionnaire. **Results:** The Air Bone Gap (ABG) was noted as follows: < 10 dB among 67,8% of patients and 11-20 dB among 21,4% of patients in tympanoplasty type I. In tympanoplasty type II the ABG was responsively: < 10 dB - 80% patients, 11-20 dB - 10% patients. In the type III of tympanoplasty 40,4% of patients showed ABG < 10 dB and 42,5% of patients 11-20 dB. In the type III with columella we noted 15% patients with ABG < 10 dB and 65% of them with ABG 11-20 dB. **Conclusions:** The cartilage is a good auto-graft for reconstruction of the tympanic membrane, middle ear and the auditory wall because of stability and lack of secondary perforations. Long-term results in hearing are also satisfactory.