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Petrous Cholesteatoma (R631)**ID: 631.3****Diagnosis, classification and surgical management of Petrous Bone Cholesteatomas: Gruppo Otologico experience of 200 consecutive patients**Presenting Author: **Mario Sanna**

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Diagnosis, classification and surgical management of Petrous Bone Cholesteatomas: Gruppo Otologico experience of 200 consecutive patients.

Objective: To review the classification and management of Petrous Bone Cholesteatomas (PBCs) at our center and the outcomes of facial nerve (FN) management in these lesions.

Study Design: Retrospective study.

Setting: A quaternary referral center in Italy for Skull Base pathology.

Patients: 200 patients with 201 PBCs were included in the study.

Interventions: All patients diagnosed radiologically to have PBCs were classified according to the Sanna Classification. All patients were surgically treated and followed up with radiology.

Main Outcome Measures: Classification of PBCs, surgical approach used, disease control and FN outcomes were analysed.

Results: Supralabyrinthine PBCs were the most common type with 92 (45.8%) cases followed by the Massive PBCs with 72 (35.8%) cases. Preservation of pre-operative facial nerve function was highest in the Infralabyrinthine (72.2%) and Infralabyrinthine-apical (73.3%) types. The Transotic Approach was used in 66 (32.8%) cases in this series. The MTCA – Type A was applied in 55 (27.3%) of the cases. An active management of the nerve (re-routing, anastomosis or grafting) was required in 53 (26.4%) cases. Post-operatively, of the 116 cases with FN HB Grade I and II, 107 (92.2%) cases retained the same grade or improved. Recurrence was seen in seven (3.5%) cases.

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Free Papers (F632)**ID: 632.1****Mastoid obliteration with cryopreserved homologous bone graft**Presenting Author: **Anna Carolina Fonseca**

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Learning Objectives: Demonstrate that homologous bone graft from a bone bank can be a nonexpensive and easy-to-use filler material for mastoid obliteration.

Introduction: Mastoid obliteration was introduced to eliminate canal wall down (CWD) mastoidectomy-related problems, and is currently the treatment of choice for chronic discharging mastoid cavities. The aim of this study was to assess the control of suppuration after revision surgery with mastoid obliteration for chronic otitis media (COM) using cryopreserved homologous particulated bone graft (CHPBG), a low-cost filler material obtained from a tissue bank.

Methods: Prospective interventional case series in a tertiary referral hospital. The study population (10 adults) was selected from among patients who had undergone CWD or canal wall up (CWU) mastoidectomy for COM with or without cholesteatoma, and had an indication for revision surgery. Revision mastoidectomy with obliteration of the open cavity was performed with CHPBG. Our main outcome measure was the control of suppuration. Secondary outcome measures included CHPBG integration in the mastoid cavity, hearing outcomes, presence of recurrent or residual cholesteatoma, and postoperative complications.

Results: Mean age at surgery was 35.2 years. Mean follow-up was 28 months. Seven patients achieved a dry ear at a mean of 8 weeks postoperatively. Three patients developed bone graft exposure followed by infection and extrusion through the ear canal. Mean bone density was 755.35 Hounsfield units measured at the obliteration site at a mean of 31 months postoperatively. Percentage of mastoid volume obliterated was between 75% and 100% in 6 cases and between 50% and 75% in 1 case. In all 7 patients, there was an increase in bone density postoperatively.

Conclusions: This study demonstrated that CHPBG may be used to achieve a dry mastoid cavity with satisfactory bone graft osteointegration and density maintenance.

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Free Papers (F632)**ID: 632.2****Canal Wall Down Mastoidectomy With And Without Autologous Bone Obliteration: a Comparison of Results in Adults**Presenting Author: **Francesco Mancini**