ICW MASTOIDECTOMY

Complications
Patterns of residual disease after ICW cholesteatoma clearance. Staged surgery is necessary in many cases to avoid later problems, Particularly in the attic.
Residual cholesteatoma, Rt ear. Second stage ICW, 12/12 after initial surgery. A 2-3 mm pearl is present immediately above the lateral semicircular canal.
Same case as the previous frame revealing a 1-2 mm second focus. This would probably be missed on a monitoring MRI scan.
A residual pearl of cholesteatoma, centrally, in the anterior attic, Rt ear. Previous ICW managed with a titanium attic reconstruction.
Residual cholesteatoma in the anterior attic, one of the more common sites due to the confined access during initial surgery.
Diffuse Rt residual stapedial cholesteatoma 12/12 after initial ICW surgery for pars tensa pattern disease, in another centre.
A residual cholesteatoma pearl on the Rt stapes superstructure 12/12 after initial ICW surgery, approximately 1mm diameter.
A larger focus of residual cholesteatoma on the posterior end of the lateral canal. A C-clip is seen in the attic, but the titanium repair is obscured.
Post-aural abscess. Advanced residual cholesteatoma. Declined advised 2nd stage re-inspection.
Drainage of a post-aural abscess due to residual cholesteatoma. Non-compliant patient, neglected planned second stage surgery.
A retraction pocket in the anterosuperior pars tensa after previous ICW surgery with attic and drum repairs with autograft cartilage. Risk of recurrence.
A deep retraction pocket that has resulted from necrosis of a composite graft in the posterior Rt pars tensa. Probable early recurrent cholesteatoma.
Dry keratin occluding a slit-like defect between a pars tensa composite graft repair and the malleus handle. A large sac had formed into the mesotympanum, around the stapes.
Recurrent cholesteatoma, erupting via a posterior wall erosion. The recurrence began in the posterosuperior pars tensa, where granulations are visible around drum collapse.
Extensive recurrent cholesteatoma matrix covering the middle fossa dura, subsequent to Rt ICW surgery ten years previously.
Detail of the previous case. A cholesteatoma sac extends from the dimpled central area of matrix into the Rt middle cranial fossa.
Extensive Lt recurrent cholesteatoma in the mastoid cavity
Lateral EAC wall necrosis several years after ICW surgery. Previous cartilage attic repair. Early upper drum collapse revealing the edge of a polyethylene TORP.
Same case as the previous frame, two years later. Early extrusion of the TORP, but the wall defect and retraction sac have remained free of evident cholesteatoma.
Marginal collapse of the Rt pars tensa after ICW surgery and an Oval-Top ossiculoplasty. Subtle keratin accumulation suggests early cholesteatomatous degeneration.
Severe tubal insufficiency after ICW surgery. Profound drum collapse into the tubal orifice and an attic retraction pocket with early keratin formation. Poor prognosis.
Marked blunting of the inferior scutum plus considerable resorption of the posterior canal wall, post ICW, probable onlay drum graft method.
An early ICW case without attic reinforcement. Marked attic retraction and an area of posterior EAC erosion, but without keratin accumulation. A disc of cartilage overlies a polyethylene PORP.
Advancing erosion of the postero-superior EAC wall with early keratin debris evident superiorly, suggestive of cholesteatomatous degeneration.
Gross attic retraction after ICW surgery using homograft cartilage attic repair (1978). Chronic tubal insufficiency and cartilage resorption have caused the pocket and also a middle ear effusion.
Drum and attic invagination after resorption of homograft cartilage repairs, post-ICW. An Oval-Top TORP has toppled and become fixed to the scutum. Keratin “tails” indicate cholesteatoma beginnings.
Gross collapse of cartilage chip attic repairs and early keratin re-accumulation after ICW surgery.
Extensive erosion of the lateral bony EAC wall, a less common problem that may develop many years after ICW surgery. The defect may escape notice if the conchal bowl cartilage overhang is marked.
A large granuloma overlying a Rt lateral canal fistula. Managed by disease clearance, left to the last stage of ICW and undertaken by fine sharp dissection. Second stage essential.
Rt second stage ICW. A middle fossa brain hernia occluding the attic.
A large brain hernia occluding a Rt attic at 2nd stage ICW surgery. A HA attic defect plate is in situ.
Detail of the previous frame. The herniation has resulted from dural exposure during primary ICW cholesteatoma removal from the attic.
Retraction of the brain hernia, allowing inspection of the at-risk anterior attic, to exclude the presence of residual disease.
Similar hernia, Lt ear. The posterior tympanotomy is seen immediately inferior to the bulge of the hernia