WIDENING THE EXTERNAL EAR CANAL
Canal widening situations: 1 tight introitus, 2 subluxing conchal bowl, 3 anterior wall overhang, 4 exostoses, 5 hourglass canal, 6 diffuse narrowing, 7 anterior blunting, 8 obliteratorive fibrosis, 9 congenital atresia.
Normal EAC, illustrating the S-bend that guards against penetrating injury. An exaggerated curve hinders access to the posterior wall and anterior tympanic membrane.
Narrow introitus. This can be due to either developmental origins, or in later life, to anterior subluxation of the conchal bowl cartilage, that may hinder hearing aid use.
Anterior EAC wall overhang, obscuring the anterior angle and much of the tympanic membrane.
Anterior wall overhang. An inferior drum perforation is partly visible, but an anterior wall drill-back is required to permit trans-canal repair rather than a post-aural approach.
EAC exostoses, common after long term cold water sports. Intermittent blockage from water, later debris and infection, dictates removal, preferably via a transcanal approach.
Advanced exostosis formation after many years’ surfing.
“Hour-glass” mid-canal narrowing, common in Down syndrome and some congenital ear variants. Severe cases may require mid-canal split skin grafting.
A severe hourglass EAC constriction in a Down syndrome case. Down cases may be complicated by hard keratinaceous debris that complicates AC aid use.
Acromegaly. Bony growth may cause severe diffuse EAC narrowing.
Diffuse soft tissue thickening in the EAC as a result of chronic otitis externa. Elevation and thinning the diseased skin is effective, but meticulous and time consuming.
Anterior angle blunting as a result of past surgery, particularly onlay myringoplasty. Clearance may require an anterior wall drill-back; recurrence may occur.
Severe blunting of the deep canal, Rt ear. Prior tympanoplasty surgery.
Gross obliterative fibrosis of the deep EAC. Progressive scarring usually results from advancing chronic myringitis. Extensive canal widening and split skin grafts required.
Extensive chronic myringitis, with early cicatrising fibrosis that will progress to obliterative fibrosis and conductive deafness.
Burnt-out chronic myringitis complicated by gross EAC fibrosis. The infection has cleared, but the deep 50% obliteration causes substantial conductive losses.
Bilateral deep canal obliteration secondary to chronic myringitis. Note that the middle ears have remained unaffected. Canalplasty should recover hearing.
Congenital deep canal bony obliteration. Restoration of hearing will require Clearance of the obstruction, possible ossiculoplasty, plus split skin grafting of much of the EAC.