CONGENITAL EAR RADIOLOGY
External and Middle Ear
Right canal atresia. The middle ear is undersized and disorganised. Normal basal cochlear turn. Left side normal.
Right EAC atresia, middle ear poorly formed. Middle ear reconstruction inadvisable.
Atresia of the EAC on the right. Cellular and aerated bone occludes the approaches to the middle ear site, which is of adequate dimension.
Slightly superior cut showing a deformed malleus-incus mass abnormally lateral to the middle ear site.
Bilateral canal atresia. Marked under-development of the middle ears, Lt worse. Misshapen ossicle mass in the Rt ear, probably fused to the attic wall.
Same case, demonstrating the course of the horizontal facial nerves in normal position.
Goldenhar syndrome. Narrow and tortuous Rt EAC, disorganised middle ear.
Same case, deep Lt bony atresia, better aerated middle ear cleft, small distorted ossicular mass.
Bilateral canal atresia. There is unusually advanced aeration of the bone overlying the middle ears and superficial bony closure of the left EAC. Normal cochleas.
Similar case, mature male. Advanced aeration but absent EACs. Suitable for canalplasty and tympanoplasty.
Bilateral microtia with narrow EACs. On the left the canal is narrow, but patent, with some debris. On the right a large inclusion cholesteatoma fills the canal. Poor tympanoplasty prospects.
Same case, coronal view demonstrating the right inclusion, with minor aeration in the deep canal. The middle ear is shallow and featureless.
Posterior section, showing partial aeration of the rear EAC, around the keratin mass.
Goldenhar syndrome. A narrow and tortuous canal is seen on the left, with a poorly developed and thick membrane. The middle ear is deep but well aerated. Absent right EAC, bony atresia.
3D radiological lateral view of the normal mastoid, EAC and tempo-mandibular joint relationship.
Subluxation of the TMJ into the EAC in a case of canal atresia. A subluxed joint occludes surgical access to the middle ear site and may preclude reconstruction.
Right deep EAC atresia. Bony plate sealing off the middle ear.
Right canal atresia and middle ear deformity. There is a thick bony atretic plate and an undersized middle ear. Poor hearin repair prognosis. Lt normal.