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"Why does my child have a hearing loss?" - An overview of medical causes of permanent hearing disorders in children

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Deafness is the commonest congenital sensory impairment in humans. About 1-2 babies per 1000 births have severe to profound deafness and the prevalence rises with age. Causes of permanent deafness are varied. Approximately 50% is genetic in origin and the rest are environmental reasons. Of the genetic reasons, about 15% is syndromic and 85% is non-syndromic. Non-syndromic causes can be autosomal dominant, autosomal recessive, X-linked or mitochondrial mutations. Most of the syndromes can cause disorders in other body systems. e.g. vision and vestibular disorders in Usher Type 1, renal disease in Alport Syndrome. There are numerous environmental causes. Congenital cytomegalovirus (CMV) is the commonest congenital infection and can present with late-onsetor progressive deafness. Symptomatic congenital CMV, if diagnosed early, can be treated with anti-viral medication to prevent the progression. Infections such as measles, mumps and rubella are becoming rare due to immunization. Meningitis needs urgent auditory and vestibular assessments to establish amplification and cochlear implantation. Ototoxic and vestibulotoxic medication can cause sudden or progressive auditory and balance difficulties. Head injuries can cause sudden deafness.

Biography

Sudhira Ratnayake, MBBS, MRCSEd, DO-HNS (RCS Eng), MSc, is a Consultant Audiovestibular Physician at The Royal Wolverhampton NHS Trust and is the Team Leader for the local Newborn Hearing Screening Programme. He completed specialist medical training in Audiovestibular Medicine in London, UK, and has a Master's degree in Audiovestibular Medicine from University College London. His research interests are in the causes of hearing and balance disorders. His MSc thesis on aetiology of unilateral deafness in newborns has been cited in UK national guidelines. He has been involved in teaching junior doctors, medical students and audiology students for over 10 years.

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