

INTRODUCTION
AND
AIM OF THE WORK

Introduction

Middle ear effusion have been shown to occur commonly in neonate, both in out patient department & intensive care unite (I C U). Post mortem Series of neonatal temporal bones also suggest that suppurative middle ear effusion is common in this age group. In spite of this, otoscopy is not routinely performed on neonates even in those subjected to extensive batteries of invasive culturing Procedures for sepsis of unknown aetiology. This is clinically significant since suppurative middle ear effusion (MEE) has been shown to act as a focus for dissemination of bacteria into blood stream as well as C.N.S. (Balkany et al, 1978).

Aetiology:—Middle ear effusion may be serous or suppurative (Balkany et al, 1978) 1)Aspiration of meconium stained amniotic fluid. 2)Nasotracheal intubation as the presence of the tube coursing through nasopharynx introduces physical inhibitor to normal Eustachian tube function. Also it can cause oedema and infection in the nasopharynx that can result in increased risk of middle ear disease. (Gravel et al, 1988).Prolonged Nasotracheal intubation up to 1 week usually results in suppurative middle ear effusion.(Balkany et al, 1978,).

Bacteriology:- Suppurative middle ear is usually due to streptococcus pneumoniae, Neisseria catarrhalis, Hemophilus influenzae, gram negative enteric bacteria or Pseudomonas aeruginosa and Staphylococcus aureus. Sometimes; MEE is sterile or has nonpathogenic organisms (S. epidermidis; Candida sp., diphtheroids, & - haemolytic streptococci). (Shurin et al., 1978).

Middle ear disease is difficult to diagnose in neonates because of size and topography of external auditory canal and the fact that many episodes are associated with nonspecific symptoms. If it remains undetected; otitis media with effusion may precipitate general sepsis. Marked histological and anatomical changes within middle ear cleft secondary to otitis media with effusion have been found at postmortem examination of NICU; infants. Neonatal episodes of otitis media with effusion experienced by former NICU patients may affect their longterm otologic courses. Early episodes of otitis media with effusion could result in physiological changes within middle ear cleft; subsequently predisposing some babies to repeated occurrence of middle ear disease. (Gravel et al 1988).

Aim of The Work

The study is designated to establish the normal microotoscopic appearance of newborn tympanic membrane and to determine prospectively the prevalence and bacteriology of MEE in the neonatal Intensive care Unit in comparison with control group of full term infants.