Anaerobic respiratory infections in neonates

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Acute respiratory infections are the most common illness in neonates, and remains an important cause of morbidity and mortality in the newborn infant.The present work aimed at studing the incidence of anaerobic bacteria causing neonatal pneumonia, and the importance of gastric aspirate and blood cultures as a true lines in the diagnosis and management of neonatal pulmonary infection. The study was carried out on 40 newborn infants suffering from neonatal pneumonia (10 cases were congenital pneumonia , and 30 cases were acquired) and 20 normal newborn infants served as control group. For each neonate, complete blood picture were done. Also, gastric aspirate and blood cultures were taken and studied -bacteriologically (aerobically and anaerobically). In the present study, E.coli (Gram negative bacilli) were the most common isolates from gastric aspirate culture of the diseased neonates (25%). Also, E.coli (17.5%) beside staphylococci (17.5%) were the most common isolates from blood cultures. There were 5 cases/with anaero is blood culture which represnt (12.5%) of cases with positi bloo culture. Bacte oids are almosli always the organism rev sled. The incidence of bacteremia in neonatal pneumonia in ourneonatal care center was (62.5%) with 50% aerobic and 12.5% anaerobic.Perinatal factors associated with neonatal anaerobic infections are :*Prolonged rupture of membrane*Cesarean section*Prematurity,The total leucocytic count, the band and segmented forms of neutrophils were significantly elevated in patient group.from this study we concluded that:* Gastric aspirate culture in neonatal pneumonia is of limited value in diagnosis of organisms causing pneumonia.* Blood culture is recommended in every case of neonatal pneumonia (either congenital or acquired).* Blood culture must be done aerobically and anaerobically because strict anaerobic organism shows no bacterial growth on aerobic cultures.* The total and differential leucocytic count (including the band and segmented forms of neutrophils), are helpful in rapid diagnosis of neonatal pneumonia while awaiting for the bacteriological results.* Viruses, fungi, or protozoa may be the causative agents in those cases of neonatal pneumonia in which no bacterial growth could be obtained and they need further investigations for their identification.