

Group B Streptococci in Neonatal Deaths

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Clinical microbiologists are reminded to look for group B streptococci in neonatal infants. We report four deaths, one with meningitis, occurring among 14 such infected newborn infants at our institution; of the nursing staff, 31% were also carriers of group B streptococci.

Several reports have appeared in the literature concerning *Streptococcus pyogenes* (hemolytic, group A streptococci) infections. The group B streptococci (*S. agalactiae*) frequently are listed in textbooks on clinical and medical microbiology as causing mastitis in cattle with little attention given to their role in human infections.

It is well known that group B streptococci are often a part of the normal flora of the human female genital tract. A recent report emphasized the frequency of human female urinary tract infections due to group B streptococci (1). One group of investigators showed a correlation between the presence of group B streptococci in cervical swabs from mothers and the subsequent infection of their newborns with the same organism (2). Eickhoff and his associates (3) reported that group B hemolytic streptococci account for about 25% of neonatal sepsis seen.

At Children's Hospital and Adult Medical Center of San Francisco we recently experienced a series of infections in neonatal infants from which group B streptococci were isolated. These infections were seen in premature infants with 4 deaths occurring in the 14 infants studied (one of which died with a group B *S. meningitis*).

Accordingly, the current policy at this hospital is to culture nasopharyngeal, stool, and stump specimens from premature infants before entering and after leaving the premature nursery. The premature nursery staff has been reeducated as to the importance of sterile technique in handling these infants. In addition, vaginal, rectal, and nose and throat cultures were taken from nurses working in the premature nursery with a rather high recovery rate of group B streptococci (31%). Since these procedures were established, no new infections have occurred with group B streptococci in our premature infants.

On 10% sheep blood-agar plates, the group B streptococci we encountered had a rather typical colonial morphology, not unlike that seen with

enterococci. The colonies are smooth, soft, shiny, white, measuring 1 to 1.5 mm in diameter, with a characteristic very narrow zone of β -hemolysis. These streptococci were not group A by the bacitracin disc method nor group D by the usual biochemical methods.

In each case, the suspicious organisms were isolated in pure culture and sent to the California State Health Department Laboratories for grouping with confirmation as to their being group B streptococci. The National Communicable Disease Center in Atlanta is currently typing the cultures of group B streptococci we isolated from infants and from our nursery staff for premature infants.

The paper by Hood, Janney, and Dameron (4) should be consulted for a complete description of *S. agalactiae*. This note is not meant to be a comprehensive review of the literature or a detailed description of group B streptococci but only to reemphasize to clinical microbiologists that serious and even fatal infections due to group B streptococci can occur in newborn infants.

Further investigations on group B streptococci infections and incidence are being carried out at this institution by the microbiology laboratory, various medical staff members, and other interested individuals. A more complete report of these investigations will be published at a later date.

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