

SURVIELLANCE OF BACTERAEMIC PATTERN IN A TERTIARY LEVEL NEONATAL INTENSIVE CARE UNIT

P. Arora, A.E. Abdelhamid, M. Ramaswamy, S. Fang

Neonates, Homerton University Hospital, London, UK

Background: Sepsis remains one of the major challenges in neonatal practice.

Objective: To review the trend of positive blood culture in a tertiary neonatal unit.

Methods: Retrospective analysis of all positive blood culture results from 2002 to 2009.

Results: Of the 840 positive blood cultures gram-positive bacteria accounted for 82 % (687), gram-negative for 14.5 % (122), and fungal isolates for 3.5 % (31). There were almost equal number of males and females.

Early onset infections accounted for 10% (85), with 37 % (32) in 24-28 weeks gestation and 34 % (29) in babies greater than 36 weeks. The commonest organism was Coagulase-negative Staphylococci (CoNS) 47 (55 %) followed by GBS 16 (19 %) and Escherecia coli in 5 (6 %).

Late-onset infections(755 positive cultures) was much more common in preterm with 75 % (568) in 24-28 weeks gestation and 2.7 % (21) in more than 36 weeks. The commonest organism being CoNS 495 (65.5 %), Group D streptococcus 46 (6%), Klebsiella 34 (4.5%), Candida 31 (4.1%), Escherechia coli 27 (3.5%), Enterobacter cloacae 16 (2.1%), Serratia 13 (1.7%), and Pseudomonas aerogenosa 9 (1.1%).

Gram-negative infections have shown an upward trend. E.coli, Klebsiella, and Pseudomonas had a mortality rate 44% (33/75). Fungal infections had 48.8 % mortality. Males had fatal outcome in 18% as compared to females 29%.

Conclusions: Gram-negative sepsis is on the rise and has a high mortality. As fungal sepsis was very likely to be fatal, prophylactic antifungal agents in extreme preterm babies are a useful adjunct.