

## **SALMONELLA THYPHIMURIUM EARLY ONSET NEONATAL SEPSIS**

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### **Background :**

Early onset neonatal sepsis due to *salmonella spp* is rare in developed countries. Vertical and horizontal transmissions were described, including faecal contamination of the birth canal. After a short incubation period, newborns may remain asymptomatic or present with sepsis or meningitis. Mortality rate as high as 58% were reported.

### **Case Presentation Summary:**

We report a case of transplacental *Salmonella Typhimurium* infection in a premature infant.

A mother with a one day history of fever and diarrhoea spontaneously delivered a premature boy at 35 weeks of gestation.

On day 3, the infant presented with symptoms suggesting necrotizing enterocolitis: apnea, respiratory distress, feeding intolerance, bloody diarrhea and fever. Feeding were suspended and intravenous antibiotic therapy (ampicillin, amikacine and metronidazole) initiated. Laboratory data showed an inflammatory syndrome with elevated C-reactive proteine (71 mg/l), leukocytopenia ( $7270/\text{mm}^3$ ) and severe lymphopenia ( $580/\text{mm}^3$ ). Enterocolitis stage 1 (Bell classification) was diagnosed based on clinical and radiological evaluation.

*Salmonella spp* were grown from the baby's blood and stools and from the mother's stools; the National Reference Center identified a *Salmonella Typhimurium*.

Cerebrospinal fluid culture remained sterile. Clinical and biological evolutions were rapidly favourable with 14-days of cefotaxim IV.

Maternal history revealed consumption of raw meat 3 days before delivery.

### **Discusssion :**

*Salmonella spp* should be considered in the differential diagnosis of early onset sepsis, particularly when mother presents gastrointestinal symptoms. Food safety education is crucial. The consumption of raw or uncooked meat during pregnancy should be avoided regardless toxoplasmosis immunization status.

To avoid outbreaks in the neonatal ward (as reported in the literature), rapid detection and prompt institution of isolation and clustering measures are important.