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## Neuro-imaging complication of neonatal meningitis in full and near terms newborn. A retrospective study of one center

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**Background:** Neonates are at greater risk for sepsis and meningitis than other ages. Early onset neonatal meningitis due to streptococcus group is serious but uncommon disease. The incidence of overall neonatal bacterial meningitis has also not changed: 0.22 cases/1000 live births (1985–87) versus 0.21 cases/1000 (1996–97), to 0.03 in 2002 in industrialized countries. Complications of neonatal meningitis in full term and near term is a major challenge.

**Objective:** The aim of this study was to determine neurologic complication of neonatal meningitis due to streptococcus B in full and near full term newborn in one medical center.

**Method:** We included newborns 0-28 j having been admitted to the Robert Debré Hospital between 1984 to 2014, the diagnosis of meningococcal B streptococcus has been proven by CSF culture. Laboratory data, clinical features, imaging and children were recorded (Table 1) 25 cases of neonatal meningitis B streptococcus between 1985 and 2010 have been reported, two were excluded because they had congenital anomalies; 14 records have not been found in the archives. In total, only 9 cases have been analyzed. Eight children had either a CT scan or MRI and head ultra sound (HUSS). All eight had an abnormal imaging: 5 cases 62.5% had a stroke, one case of ventricular leukomalacia perished was highlighted, as described above. Other abnormalities were asymmetric peri cerebral edema, a right temporal cortical subcortical lesions; 1 echogenicity and ventricular dilatation. All children admitted were symptomatic: neurological symptoms were either in 66.66% of cases, breathing in all cases, or hemodynamic in 33% of cases. The median admission was 13 days (3-20) age; the median temperature of 38.5 (36-39.9) Of the 9 cases, only three mothers had a history streptococcus B 95% CI (0.117-0.64). The average glucose level was 1.4 mmol: / l, the protein level of 1.75g / l with a corrected 5189 pleicytose; blood culture was positive in 33.33%, 95% CI (0.11-0.64). 25% had neurological symptoms between the ages of 1-4 years

**Discussion:** The incidence of early onset sepsis due to group B streptococcus (GBS), 0 • 43 per 1000 live births [95% CI 0, 37-0, 49] and mortality 12, 1% is two times higher than those reported for late infections. The prevalence of neonatal meningitis is estimated 0.15-0.5per 1000 birth in industrialized countries. With an estimated mortality in the international literature mortality is estimated between 8.5 to 15%. (4). Complications imaging are known: ventriculitis; Stroke, abscess or consequences in the medium and long-term expectations of subtle neurological moderate or severe.

**Conclusion:** Neonatal meningitis due to groupe B streptococcus is rare, but can cause complication in both term and preterm newborn. Periventricular leukomalacia as the complication of infection is well described in preterm newborn, but research bibliographic in our study has not found similar complications in term and near term infant. Stroke is the main complication in our study and well described in literature as complication of neonatal meningitis due to streptococcus B.

### Biography

He qualified Diploma of medicine specialized in pediatrics obtained in Saint-Petersburg the 23 June 2000. He obtained specialized training certificate in pediatrics in 2003 Descartes Paris France He has completed Diploma in paediatric infectious disease.

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