Listeriosis in a Premature Neonate with Meconium Staining

1Elahe Amini M.D., 1Khadije Daneshjou M.D. and 1Ali Zolfaghari

This report describes a preterm newborn 32 weeks gestation and listeriosis that present with meconium staining. The passage of meconium on response to stress in seldom observed before a gestational age of 34 weeks. So, with the meconium staining appearance in this gestational age or less, should prompt a high index of suspicion for listeriosis.

1Department of Pediatrics, Imam Khomeini Hospital, Tehran University of Medical Sciences, Tehran, Iran
2Department of Microbiology, Imam Khomeini Hospital, Tehran University of Medical Sciences, Tehran, Iran
CASE REPORT

A female newborn with gestational age 32 weeks was born in Valiasr Hospital with normal vaginal delivery. The birth weight was 1750 g. Meconium staining of the amniotic fluid was seen. The newborn was apneic, cyanotic, pulseless. Resuscitation and endotracheal suctioning was done, after stabilizing she was transported to NICU.

The newborn had respiratory distress, hypotonia, no other positive. Initial laboratory studies, CSF analysis and culture was normal, normal CBC, normal chest X-ray, ESR = 24 mm/l h, CRP was highly positive, blood culture after 24 h was gram positive bacilli, first reported as probably contaminated, but at the last time, reported: Listeria monocytogen. The history of mother was negative for abortion or prolonged rupture of membrane. No positive culture from placenta or mother was found. Treatment was begun from birth with ampicillin and amikacin and continued for 14 days. In follow up the baby is good.

DISCUSSION

Listeria monocytogen is an unusual but important cause of perinatal infection. Because this organism is morphologically, indistinguishable from diphtheroids, often discarded as a contaminant and because decolorize during gram staining procedure, it has been mistaken as gram negative organism (Sale et al., 1991; Hess et al., 1995; Portnoy et al., 1988) So, for this reason, this organism is not reported in many centers in Iran.

This infection is more prevalent in pregnant women, neonates and immunocompromised hosts.

Listeria has been recovered from soil, sewage and deceased vegetation, it causes abortion in sheep and cattle. Contaminated foods such as unpasteurized milk, soft cheeses, raw meat and foods should be avoided by pregnant women and immunosuppressed persons (Portnoy et al., 1988).

Infection in early pregnancy can cause abortion and later, still birth or premature labor. Transplacental transmission is the most important mechanism for early-onset disease.

Late-onset disease can be nosocomial, vertical from asymptomatic mothers or caregivers. Both early and late onset disease are like other bacterial infections. In early onset, many infants appear meconium stained even before 32 weeks gestation and it is a clue in diagnosis (Bojesen-Miller, 1992). Late onset Listeriosis manifests as meningitis (Kessler, 1990).

Treatment should be given to mothers but because of premature delivery of the infant, Trimethoprim Sulfamethoxazole should not be used. Ampicillin in combination with Aminoglicosides is recommended. If the organism is present in the cerebrospinal fluid, the addition of Rifampin may be considered.

REFERENCES


