Aeromonas hydrophila Sepsis in a Preterm Neonate

A female infant was born at 27 weeks of gestation by spontaneous vaginal delivery at home in the toilet. She was retrieved, resuscitated, commenced on intravenous antibiotics and ionotropic support. She was transferred to our level 3 neonatal intensive care unit at 8 hours of age. She received 2 doses of Curosurf® for hyaline membrane disease. Inotropes were weaned and she was extubated to CPAP on day 4 in 30% oxygen. Antibiotics were ceased at 48 hours following negative blood cultures. A patent ductus measuring 2.5 mm was detected on echocardiography on day 4 and was treated with indomethacin. On day 7, however, she suddenly deteriorated with hypotension, tachycardia, respiratory distress and abdominal distension requiring re-intubation. Full blood count, CRP and blood cultures were taken and flucloxacillin, gentamicin and metronidazole were commenced. An abdominal X-ray confirmed NEC with pneumatosis intestinalis and free peritoneal gas. A laparotomy was performed with primary resection of 17 cm of jejunum and anastomosis of the perforated segment of jejunum completed. Peritoneal swabs taken during surgery grew Aeromonas hydrophila. Hematological evidence of severe sepsis persisted. Blood cultures throughout were negative. Cranial ultrasound prior to her deterioration was normal. Following surgery, the ultrasound on day 8 revealed bilateral grade IV intraventricular hemorrhage. Given the poor prognosis and high risk of poor neurological outcome, her parents chose a palliative care management plan. She was extubated on day 9 in her parents arm and died soon after. Post mortem blood cultures and swabs from the lungs and peritoneum all grew Aeromonas hydrophila and Klebsiella oxytoca.

Aeromonas hydrophila is a gram negative aerobe found in tap water, canals, streams, sewage and rivers. It is increasingly identified as a primary pathogen in the causation of diarrhea in all age groups. However it has only been rarely implicated in children with infections of the skin, bone, joint, eye, muscle, urinary tract, lungs and meninges(1). In the neonatal period, fulminant infection with septicemia has been reported in only two cases(2,3). The source of Aeromonas infection is usually nosocomial and hospital water supply has been identified in nursery epidemics(4). In our case we do not believe the infection was hospital acquired as no other infant in the NICU developed septicemia or had this bacteria isolated at or near this time. We believe this infant was most likely colonised on skin, mouth and then in its bowel following delivery in the toilet at home.
Cerebral Aneurysmal Childhood Arteriopathy: A Rare Complication of Pediatric HIV

Fusiform dilatation of vessels of circle of Willis to form large aneurysms, termed “Cerebral Aneurysmal Childhood Arteriopathy”, is an exceedingly rare complication of pediatric HIV(1). We report one such case in a 12-year-old-child with WHO clinical-stage-4 HIV disease, who was admitted with complaints of headache and right hemiparesis.

He was diagnosed with vertically acquired HIV infection at age of 2-years. There was no previous history of neurologic symptoms or neurocognitive dysfunction. He was on antiretroviral treatment (ART) since last 4 months and his recent CD4-cell-counts were 217 cells/µL. A magnetic resonance imaging (MRI) of the brain revealed an aneurysm of the supraclinoid portion of left internal carotid artery (ICA). A cranial magnetic resonance angiographic scan was consistent with intracranial arteritis and revealed a large fusiform aneurysm of the left ICA beyond the common siphon (Fig. 1). Because of the surgical risk, no intervention was attempted. He is on ART and continues to be monitored closely for improvement.

There is an increased incidence of cerebrovascular disease in HIV infected children who are severely immunosuppressed (CD4-counts < 200 cells/µL) and who acquire the infection vertically or in the neonatal period(2). The formation of fusiform aneurysm has been described previously(3), and it may be a feature specific to AIDS(4). The proximal segments of middle and anterior cerebral arteries and the supraclinoid segment of ICA (as in our patient) are the most common sites for aneurysms(2). Vascular immaturity is suggested as a possible contributory factor(2).

Most of these patients are asymptomatic during the early stages of the disease(2). With severe

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**REFERENCES**


