Diagnostic efficacy of tracheal aspirate in neonates with pneumonia soon after birth

Manju Yadav
King George's Medical University, India

Introduction: The diagnosis of pneumonia soon after birth is difficult. Blood culture is often negative mainly due to antibiotics given to the mother. Since antibiotics take longer to reach the lung fluid of the neonate the chances of a tracheal aspirate being positive on gram stain are higher.

Objectives: To determine the diagnostic efficacy of gram stain of tracheal aspirate in pneumonia soon after birth.

Study Design: Evaluation of a diagnostic test. Consecutive neonates admitted within 8 hours of birth with respiratory distress and having a risk factor for infection were included in the study. Neonates intubated for more than half an hour or having major congenital abnormalities were excluded. Sepsis screen, blood culture, tracheal aspirate and X-ray chest were done at admission. Gold standard for diagnosis of pneumonia was a compatible clinical picture plus either (i) a positive blood culture or (ii) a combination of any two of the three: maternal risk factors for sepsis, positive sepsis screen and suggestive X-ray chest.

Results: Of the 148 neonates enrolled, 70 had pneumonia of which 10 had a positive blood culture. Tracheal aspirate was positive in 40 neonates with pneumonia and 17 with no pneumonia. The sensitivity and specificity of tracheal aspirate were 57.1% and 78.2% respectively. The positive and negative predictive values were 70.2 % and 85.9 %.

Conclusions: Tracheal aspirate gram stain is a simple and quick diagnostic test in the evaluation of neonates with pneumonia soon after birth as compared to blood culture.

Craniopagus parasiticus: Parasitic head protuberant from temporal area of cranium: A case report

Getachew Desta Alemayehu, Wassihun Nega, Meku Damtie, Yonas Girma and Mengistu Hailemariam
Bahirdar University, Ethiopia

Background: Craniopagus parasiticus is a rare medical case and it is unique unlike other cases reported from different literature. The head of parasitic twins is protruding from the temporal area of cranium. Parasitic head had two deformed lower limbs; one is too rudimentary attached to the mass; long bones of bilateral lower limbs and some pelvic bones. After dissection of the mass, the intestine was seen but no chest organs and other abdominal organs: There is also rudimentary labium but no vaginal opening.

Case presentation: A 38-years-old multigravida (Gravida V para IV) women from Amhara ethnicity referred from rural health center to Referral Hospital due to prolonged second state of labor at 42+1 weeks. Upon arrival she had contraction, term sized gravid uterus and fetal heart beat was 112. On digital pelvic examination the cervix was fully diluted, station of the head was high and the pulsating umbilical cord coming in front of the presenting part with ruptured membrane but yet in the vaginal canal. The team decided to emergency cesarean section and then a live female infant weighing 4200 g was delivered. The placenta was single and normal. The APGAR scores were 7 and 9 at 1 and 5 min, respectively. The infant appeared to be grossly normal except the parasitic co-twin attached at the cranium. The neonate was investigated with the available investigations (CBC, X-Ray, Doppler Ultrasound) and Pediatric side consultation made. After a week of counseling and investigations, successful separation operation was done. During post-operative time the neonate comfortably sucking on breasts and no neurological deficit.

Conclusion: The possible etiologies of craniopagus parasiticus still unknown due to a rarity of cases. Doctors, genetic scientists, epidemiologists and researchers continue to investigate this case as the reasons that could give clue to birth defect and to provide answer for better prognosis of cases and improved the life chances of the twins. This case will have some input in the effort to know the etiology and pathogenesis of this new-born.