

How early should we do elective cesarean deliveries? (*N Engl J Med* 2009; 360: 111-120)

Previous studies have suggested that elective cesarean section may be performed earlier than appropriate, often for reasons of convenience, and that many of these cesarean deliveries are repeat procedures. The new results suggest that a high percentage of elective cesarean deliveries at US academic medical centers are performed before 39 weeks' gestation i.e., at 37-38 weeks. These deliveries are associated with an increased risk of adverse outcomes, including adverse respiratory outcomes, mechanical ventilation, and hospitalization for 5 days or longer. These findings support recommendations to delay elective delivery until 39 weeks of gestation.

COMMENT The trend of elective cesarean section is also increasing in India. It is important that these be delayed till the completion of 39 weeks, as far as possible.

Role of universal PCR in diagnosing neonatal sepsis (*Arch Pediatr Adolesc Med* 2009; 163: 6-11)

The goal of this study was to evaluate the ability of universal primer 16S rRNA gene PCR to diagnose blood culture-positive neonatal sepsis before and after starting antibiotic treatment in 242 neonates at a level 3 neonatal intensive care unit. Blood culture was positive in 52 neonates while corresponding 0-hour PCR was positive in 57 subjects. The authors concluded that universal primer PCR can accurately diagnose neonatal sepsis before but not after antibiotic drugs are given.

COMMENT This study takes a unique perspective on diagnosing early onset neonatal sepsis, by linking it to a PCR test that is not specific for any single bacteria. Hopefully, further refinement of this test would lead to the elusive holy grail of early and accurate diagnosis of neonatal sepsis.

Saliva testing for autism (*J Proteome Res* 2008; 7: 5327-5332)

The discovery of abnormal salivary peptides in a subgroup of patients with autism spectrum disorder (ASD) may prove to be a useful biomarker for the disorder, a small study suggests. Researchers found that more than 60% of children with ASD had hypophosphorylation of at least 1 of 4 salivary peptides. The molecular basis of ASD may be partly explained by a defect in the phosphorylation process during the development of the central nervous system in the embryo or in early infancy.

COMMENT A unique study that provides a completely new dimension for testing for autism, and also suggests a possible cause for this yet unsolved medical mystery.

Children with drowning – the relevance of a cranial CT (*Pediatr Crit Care Med* 2008; 9: 567-572)

The primary aim of this study was to better define both the type and incidence of cranial computed tomography (CT) abnormalities in 156 children following submersion injury. Eighteen percent ($n=28$) of children had an abnormal initial head CT, and 15% ($n=24$) initially had a normal head CT and later had an abnormal CT. Abnormal CT findings included diffuse loss of gray-white differentiation (75%) and bilateral basal ganglia edema/infarct (50%). All children with an abnormal initial CT presented with a Glasgow Coma Scale of 3, and all eventually died. Outcome was also very poor in those with a normal first CT and an abnormal second CT; 54% died and 42% remained in a persistent vegetative state.

COMMENT The results of this largest study of CT scan in children with drowning clearly indicate that abnormal CT scan at any time was associated with a poor outcome; this can help in prognostication.

Gaurav Gupta
drgaurav@charakclinics.com