Late diagnosis of fetal central nervous system anomalies following a normal second trimester anatomy scan

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Objective
The aim of this study was to describe the nature of central nervous system (CNS) anomalies diagnosed during the third trimester following a normal anatomy scan at 21-24 weeks of gestation.

Methods
Retrospective cohort study of all pregnant women referred to the fetal medicine unit at Sheba Medical Center between 2005 and 2011 due to fetal CNS anomalies detected at the late second and third trimesters following a normal anatomy scan at 21-24 weeks of gestation.

Results
During the study period, 47 patients were diagnosed with fetal CNS anomalies at a median gestational age of 31.1 weeks (range 24-38). The four most common anomalies found included intracranial cysts (19%), mild ventriculomegaly (15%), absence/dysgenesis of the corpus callosum (10%), and intracerebral hemorrhage (10%). Other CNS anomalies detected in this group of patients included hydrocephalus, Dandy-Walker malformation, large cysterna magna, microcephalus with lissencephaly, craniosynostosis, periventricular pseudocysts, global brain ischemia, cerebellar hypoplasia, and subependymal nodule.

Conclusion
Fetal brain continues to evolve throughout gestation, and therefore, some of the CNS anomalies can be diagnosed only during late second and third trimesters of pregnancy. Consequently, in patients who have a third trimester scan for any reason, assessment of the fetal CNS should be considered.