

What is your diagnosis?

A NEWBORN BABY WITH INTRACRANIAL CALCIFICATION

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CLINICAL IMAGE

A male infant born normal vaginally, 38 weeks gestational age, 3300 g body weight, was admitted to the neonatal intensive care unit for hydrocephalus. A ultra-

sound examination at 2 days of age showed common intracranial calcification (ICC) and hydrocephalus (Figure 1).

What is your diagnosis ?



Figure 1: Coronal cranial ultrasound image shows the intracerebral calcification.

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Intracranial calcification is a common pediatric neuroradiological abnormality, with a myriad of etiologies. On the other hand, fetal ICC is an unusual abnormality detected either by sonography or at autopsy, with a more limited differential diagnosis. ICC is most commonly encountered with intrauterine infections (toxoplasmosis, rubella, cytomegalovirus, herpes simplex, and parvovirus), but non-infectious causes have also been described (1,2).

Congenital toxoplasmosis was suspected after finding hydrocephalus, cerebral calcification, and chorioretinitis. Intrauterine infection by *Toxoplasma gondii* may

affect the nervous system of the foetus in the form of multifocal and diffuse parenchymal necrosis with involvement of the cerebrum, cerebellum, brain stem, and spinal cord. The multifocal necrotic areas tend to form intracranial calcifications typical of congenital toxoplasmosis, probably due to the insufficient number of phagocytes to remove debris (3,4).

Our patient had the pattern of diffusely scattered foci of calcification in the cerebral parenchyma which is typical in congenital toxoplasmosis in addition to highly positive serology for *Toxoplasma*-specific IgM antibodies.

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