INTRACRANIAL CYSTIC FORMATIONS IN NEONATES: TRANSDERMAL SONOGRAPHIC FINDINGS


Imaging Department, Albert Einstein Israelite Hospital, Sao Paulo, Brazil

MATERIALS AND METHODS

This study is based on transfontanellar sonographic exams performed routinely in our neonatal intensive care unit in preterm and term neonates.

CASES

POST-ISCHEMIC OR HEMORRHAGIC ORIGIN

Subependymal cysts after germinal matrix hemorrhage grade I

- Arachnoid cyst.

- Porencephalic cyst after periventricular hemorrhagic infarction (post-ICH grade IV)

- Right parasagittal subependymal cyst post periventricular hemorrhagic infarction.

- Schizencephaly.

- Encephalomalacia after cerebral hemorrhage

- Periventricular Leukomalacia

- Choroid plexus cysts

- Intracranial cystic formations (choroid plexus papilloma) (blue arrows) (images 3–5 – white arrows).

- Doppler study shows no flow within the cyst (images 3-5 – yellow arrows).

- Absence of corpus callosum.

- Abscess.

- Abscess occurs in the context of neonatal meningitis cases.

CONCLUSION

Transfontanellar sonography is the technique of choice for intracranial evaluation of newborns and infants up to the closure of the fontanelles, by the absence of ionizing radiation, portability, low cost and real-time diagnosis. The technological improvement of new device and the use of additional sonographic windows, such as the posterior and mastoid fontanelles, allow better assessment of intracranial structures. Transfontanellar sonography is an important method for intracranial study of preterm and term neonates, allowing differential diagnosis of several neonatal intracranial cystic formations.

REFERENCES