

## Diagnostic Imaging of Acalvaria and Hydrocephalus in a Chihuahua Dog

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**Signalment:** A three-week old female Chihuahua dog weighing 80g was presented with the absence of skull on palpation, suckling disability, and growth retardation.

**Results:** Physical examination revealed asymmetry of the lips slanting to left side when feeding milk. Also there were head tilt to the left side and left eye corneal ulcer. In radiographs, absence of the frontal and parietal bones were evaluated. Lateral ventricular enlargement was identified on the ultrasonographic examination. On the computed tomography(CT), frontal and parietal bone defect, ventricle enlargement, and intracranial arachnoid cyst were evaluated. The dog has died after 1 day of presentation. The dog was diagnosed as the acalvaria by the histopathological study.

**Clinical relevance:** Acalvaria is an extremely rare congenital anomaly in human medicine. Furthermore there has been no report for acalvaria in veterinary medicine field. Diagnostic imaging modalities are useful for diagnosing skull bone defects.

**Key words:** Acalvaria, radiographs, ultrasonographic examination, CT, ventricular enlargement

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