

Occipital Fracture or Mendosal Suture?:Case Report

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Abstract

In children plain film radiographies are still most cost-effective method in evaluating skull fractures but sometimes its difficult to differentiate sutures or vascular groves from fractures. Accesory sutures, such as the mendosal suture, may be misinterpreted as a skull fracture if additional views are not obtained.

Keywords: Mendosal suture; Occipital fracture; Forensic science

Case Report

A 8 month old boy presented with soft tissue swelling after a



Figure 1: A plain lateral radiograph showed a sharp lucency in right parietal bone (red arrow) representing a calvarial fracture and an occipital lucency that was mistaken for a fracture (white arrow).

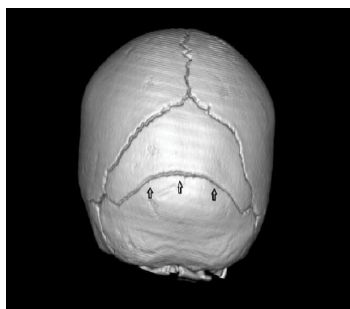


Figure 2: 3D CT showed bilateral symmetric interdigitated patern of mendosal suture (arrows).

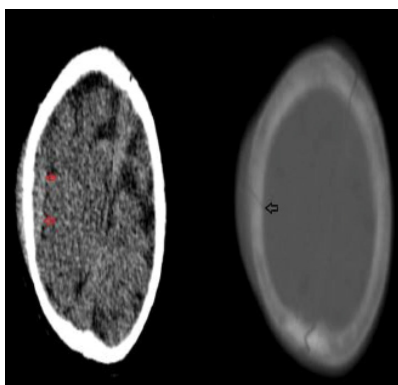


Figure 3: That is linear sharp lucency in right parietal bone accompanied by soft tissue swelling and epidural hematoma.

fall. Plain radiographs showed sharp lucencies in the parietal and occipital bones that were told to represent fractures. CT examination with 3D reconstructions was performed and showed a vertically well defined lucency at right parietal bone and 8 mm epidural hematoma. Occipital lucency in lateral craniography that simulated skull fracture was mendosal suture (Figures 1-3).

Discussion

The mendosal suture is an accesory suture located between supraoccipital and interparietal bones. The time of closure of this suture in children changes from intrauterin period till 10 years of age [1-3]. The mendosal suture is usually bilateral, symmetrical that shows sclerotic margins and interdigitated pattern [4,5]. However skull fractures are sharp lucencies with nonsclerotic edges. Soft tissue swelling or subgaleal hematoma is frequently associated with skull fractures.

Conclusion

In summary differentiation between fractures and accessory sutures is made by knowledge of the normal anatomy and timing of sutural closure especially in occipital region.

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Received August 10, 2016; Accepted October 12, 2016; Published October 20, 2016

Citation: Atacan SC, Agirbas AC, Ak H (2016) Occipital Fracture or Mendosal Suture?:Case Report. *J Clin Case Rep* 6: 881. doi: [10.4172/2165-7920.1000881](https://doi.org/10.4172/2165-7920.1000881)

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