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PARIETAL INTRADIPLOIC ENCEPHALOCELE IN AN ADULT : A RARE CASE

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Abstract
We report a rare case of parietal intradiploic encephalocele in a 51-year-old man presented to our hospital casualty with history of seizures, which was gradually progressive . The patient did not have anyprior history of head trauma.
Intradiploic encephalocele is an extremely rare condition which consists of herniation of brain through openings of dura and skull. Intradiploic encephalocele is mostly seen in children with history of head trauma. Idiopathic intradiploic encephalocele has rarely been reported in adults.

Introduction
Encephalocele is the herniation of brain tissue through dural defect. Intradiploic encephalocele is an extremely rare condition which consists of herniation of brain through openings of dura and skull. Its incidence is around 1 : 3000-10,000 live births.

Most common location of intradiploic encephalocle is occipital area and rarely seen in parietal area.

We report a case of an adult patient who presented in casualty with history of seizure and on further imaging with computed tomography (CT) and magnetic resonance imaging (MRI) demonstrated herniation of brain tissue to the parietal intradiploic space.

Case history
A 51 year old man presented to casualty with seizure which was gradually progressive…On clinical examination no other significant abnormalty was detected.

The patient was admitted and pathological & radiological work up was done. The blood reports were did not show any significant abnormality. EEG was performed which was also normal.

After performing a NECT brain, there is evidence of a 2 cm sized defect in the inner table of the right parietal bone with herniation of the adjacent right parietal lobe through the defect into the diploic space. There is resultant thinning of the outer table without any defect likely suggestive of parietal intradiploic encephalocele.MRI brain also reavealed similar findings.

Discussion
Intradiploic encephalocele is an extremely rare entity and its location in parietal region is also rare , we are lead to share the imaging features of our case.

Intradiploic encephalocele are usually presented as an incidental finding.

In this case, a cranial CT scan evidence of a 2 cm sized defect in the inner table of the right parietal bone with herniation of the adjacent right parietal lobe through the defect into the diploic space. There is resultant thinning of the outer table without any defect likely suggestive of parietal intradiploic encephalocele.

MRI was useful in establishing the definitive diagnosis by demonstrating brain herniation through the same bone defect.

The exact etiology of intradiploic encephalocele is unknown and several possibilities have been considered. The etiology accepted by the majority of authors is that it may be a variant of an expanding skull fracture, in which, according to the theory proposed by Patil et al the origin of the rupture of the internal table and associated tear of the dura would be blunt trauma. Negative pressure would occur after the impact due to shrinkage of the broken inner table, causing herniation of brain tissue and CSF to the intradiploic space.However it is difficult to document the trauma that could have caused the bone defect due to the limitations in obtaining a detailed history in these patients, as a minimal trauma is easily overlooked, especially as it may have taken place in childhood. Somewhat more controversial is the possibility that the present case might be a congenital anomaly. Congenital encephaloceles are situated in the midline and are generally accompanied by other malformations. None of the previously reported cases exhibit these characteristics, suggesting that they were not congenital in origin. Additionally, in congenital encephaloceles the discontinuity affects the outer and inner tables, unlike the presentation in intradiploic encephaloceles.

Differential dignosis

Head trauma , multiple myeloma, dermoids , epidermoids , metastatic bone tumors, arachnoid cyst , brain tumor

An intradiploic encephalocele can simulate a lytic neoplastic lesion, especially in adults. In such cases, the differential diagnosis should include a number of entities including epidermoid or dermoid cyst, cavernous hemangioma, eosinophilic granuloma, plasmacytoma, metastasis, and osteosarcoma. However, other factors, such as age, unknown primary tumor and the presence of cerebrospinal fluid (CSF) within the lytic lesion can reduce the differential diagnosis to intraosseous leptomeningeal, posttraumatic arachnoid, or intradiploic arachnoid cysts. All these entities may have some morphological characteristics in common with intradiploic encephalocele and must be rule out.

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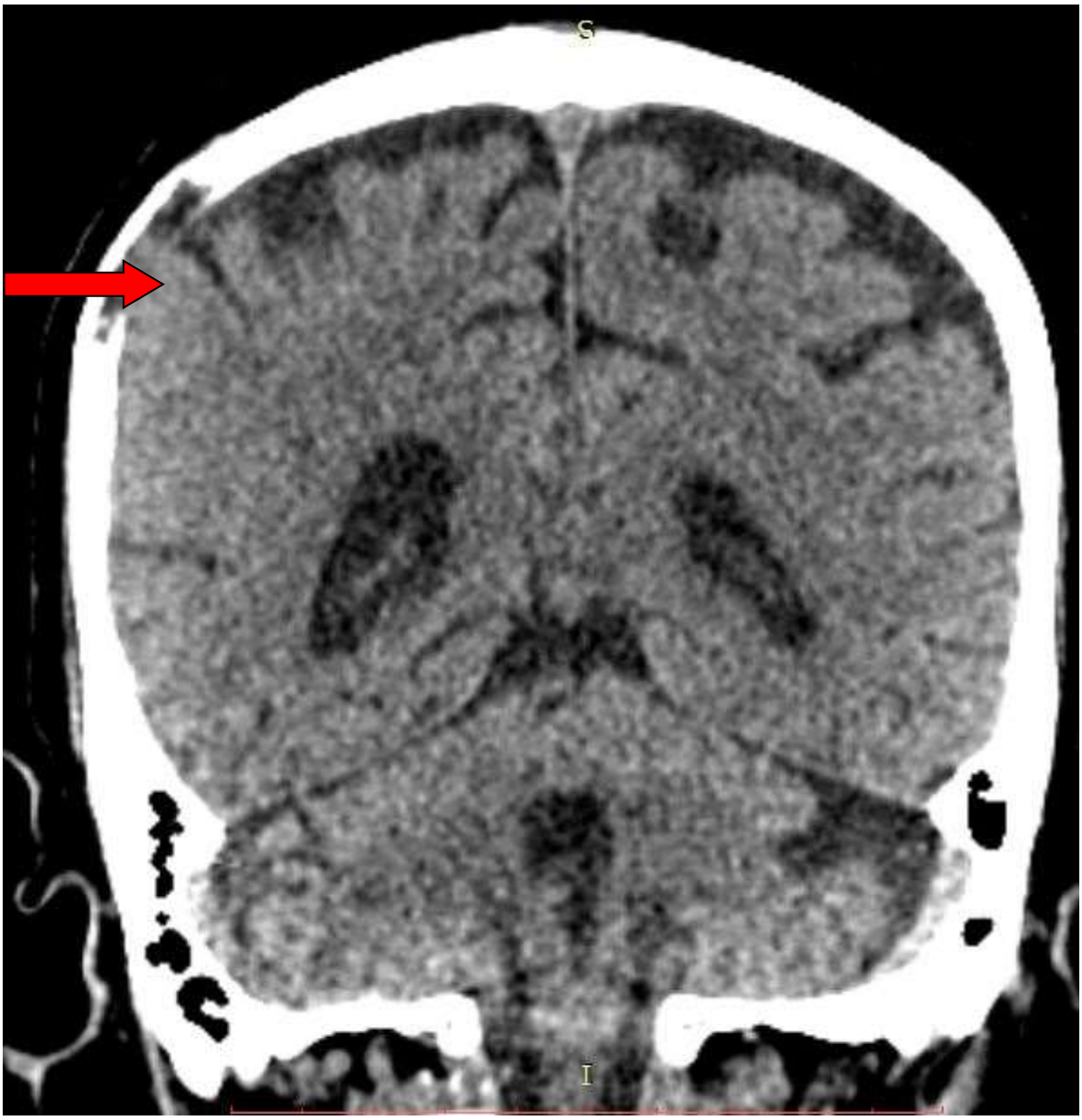

NE CT brain showing of a 2 cm sized defect in the inner table of the right parietal bone with herniation of the adjacent right parietal lobe through the defect into the diploic space. There is resultant thinning of the outer table without any defect likely suggestive of parietal intradiploic encephalocele.

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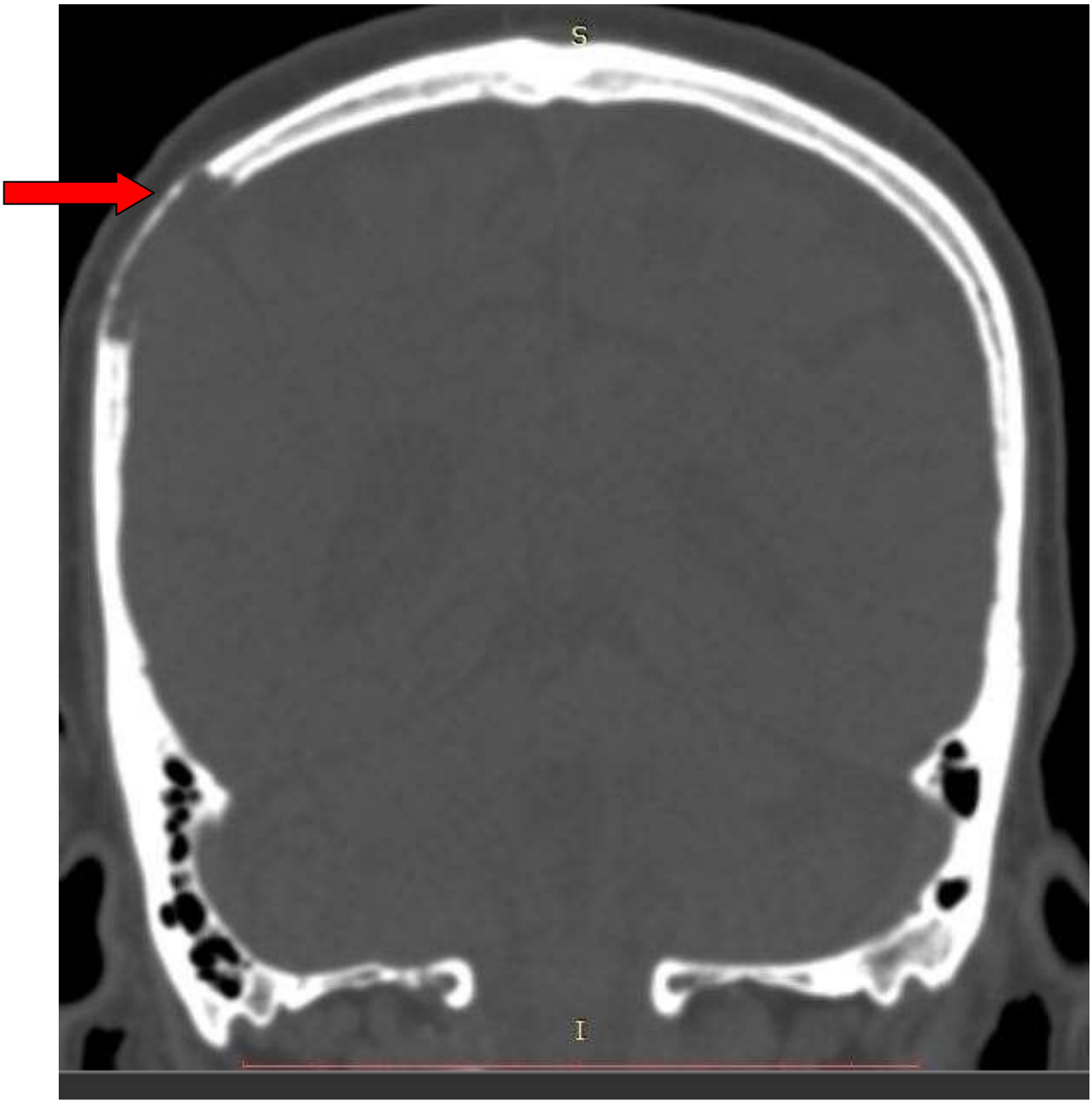

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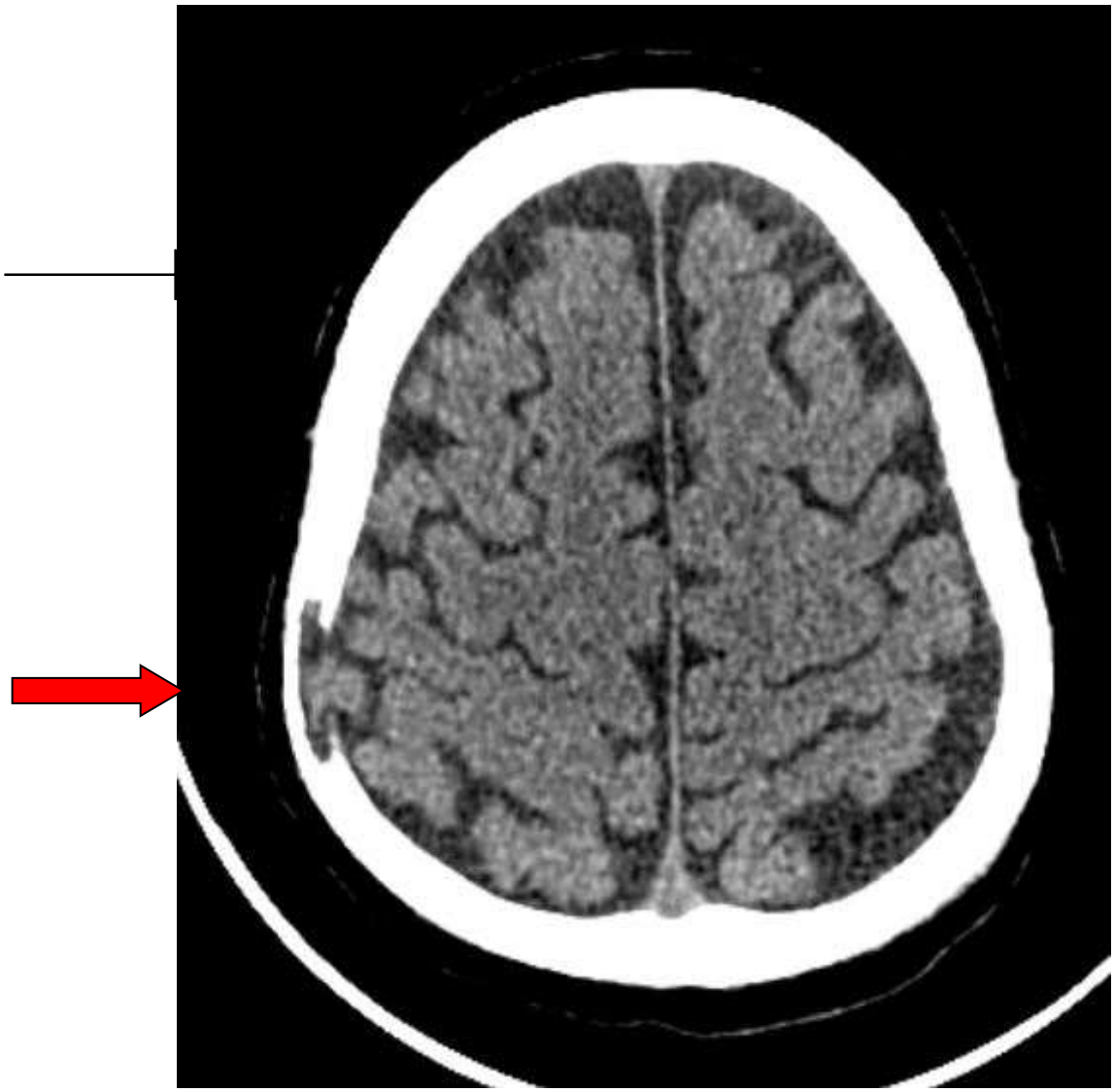

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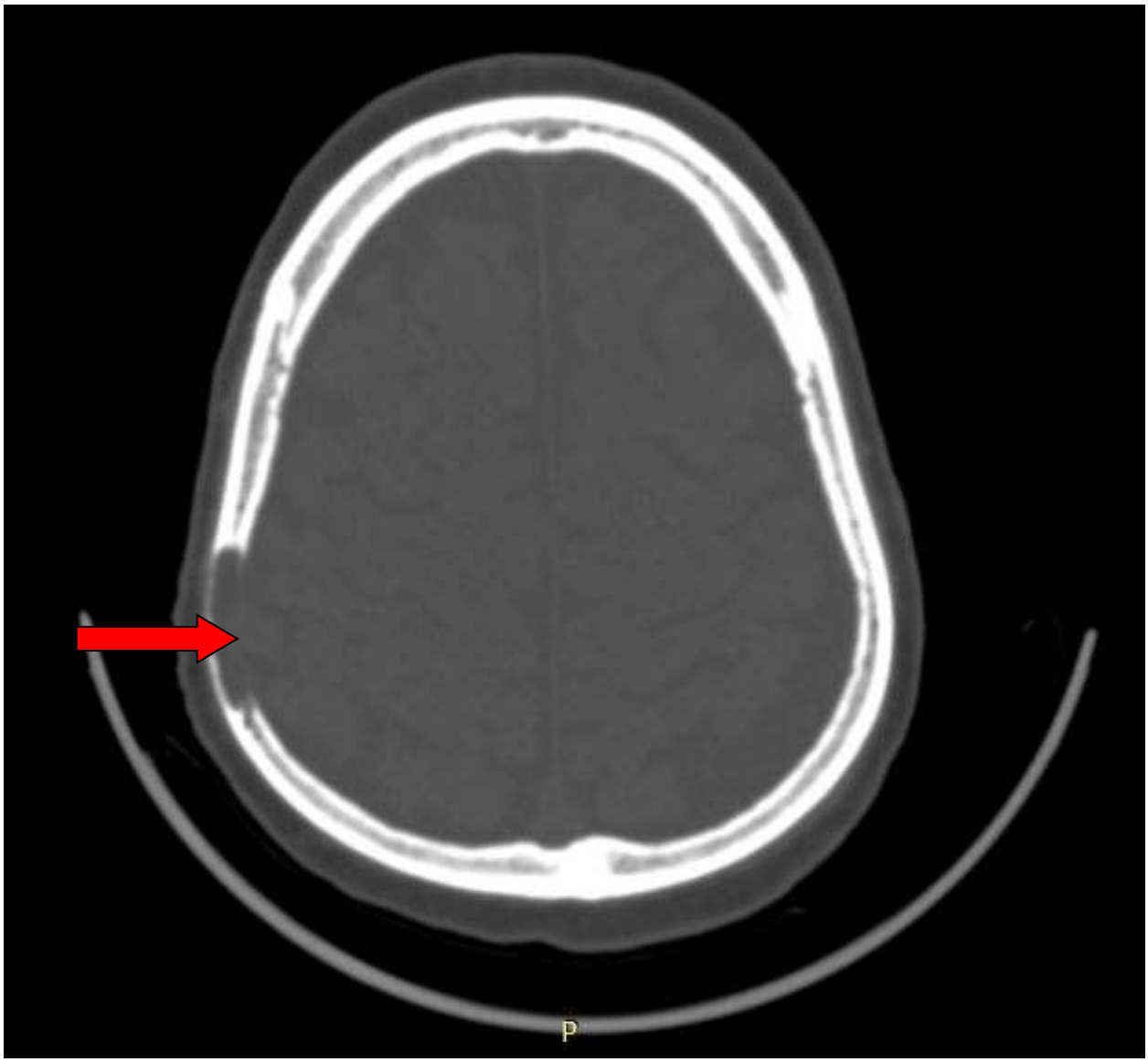

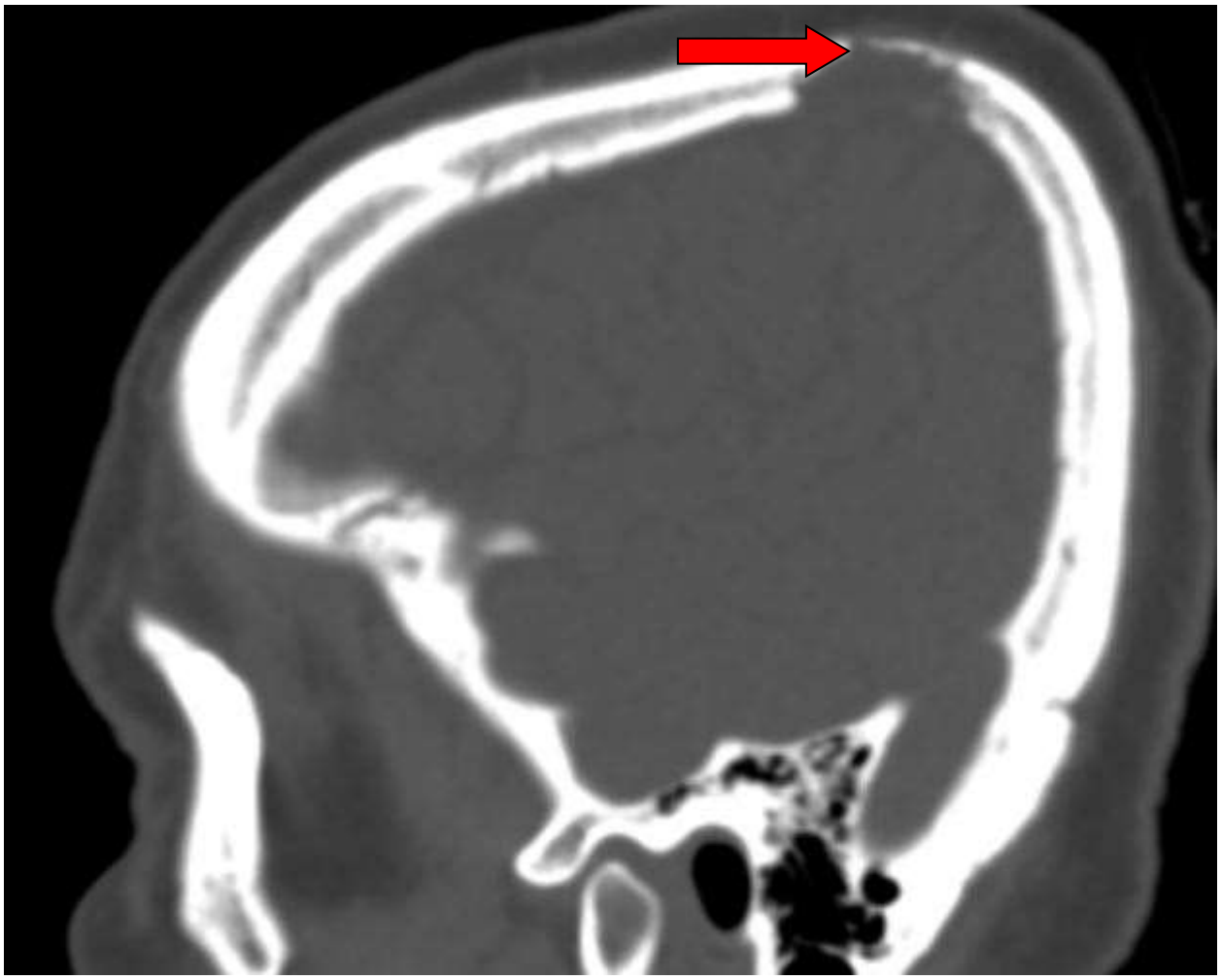

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