

Clinical Image

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Sunken brain syndrome in a patient who is status post right hemicraniectomySarah Anderson^{1*}; Michael Baldwin²¹Fourth Year Medical Student, University of Connecticut School of Medicine, Farmington, CT, USA.²Associate Professor, Radiology Department, UConn John Dempsey Hospital, Farmington, Connecticut, USA.***Corresponding Author: Sarah Anderson**

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Keywords: Sunken brain syndrome; Paradoxical herniation.**Description**

This is a 44-year-old male with history of traumatic right parafalcine subdural hematoma and uncal herniation, necessitating decompressive hemicraniectomy and hematoma evacuation. He presented to the ED due to concern for a CSF leak from the craniectomy site. MRI showed large brain herniation, ventricular dilation post contrast enhancement, and debris concerning for intraventricular abscesses. He was febrile and had a CSF cell count of 4,438, with neutrophilic predominance, and gram-negative rods. Following the placement of bilateral External Ventricular Drains (EVDs), the patient developed altered mental status. Non-contrast CT Head revealed reduced right ventricular volume concerning for sunken brain syndrome in addition to isolated left ventricular dilatation. Sunken brain syndrome is a rare condition that can occur after a large craniectomy, where the loss of the protective skull bone results in atmospheric pressure exceeding intracranial pressure resulting in paradoxical herniation [1]. As seen in this case, this can be exacerbated by CSF drainage [2,3]. The manifestations of sunken brain syndrome can include headaches, altered mentation, dys-

autonomia, seizures and focal deficits [1]. Without treatment, this condition may lead to coma or death [2]. Right EVD pressure was increased, and intravenous fluids were administered to raise intracranial pressure without meaningful mental status recovery. This case highlights the challenges of managing complex traumatic brain injury and its complications including sunken brain syndrome.

References

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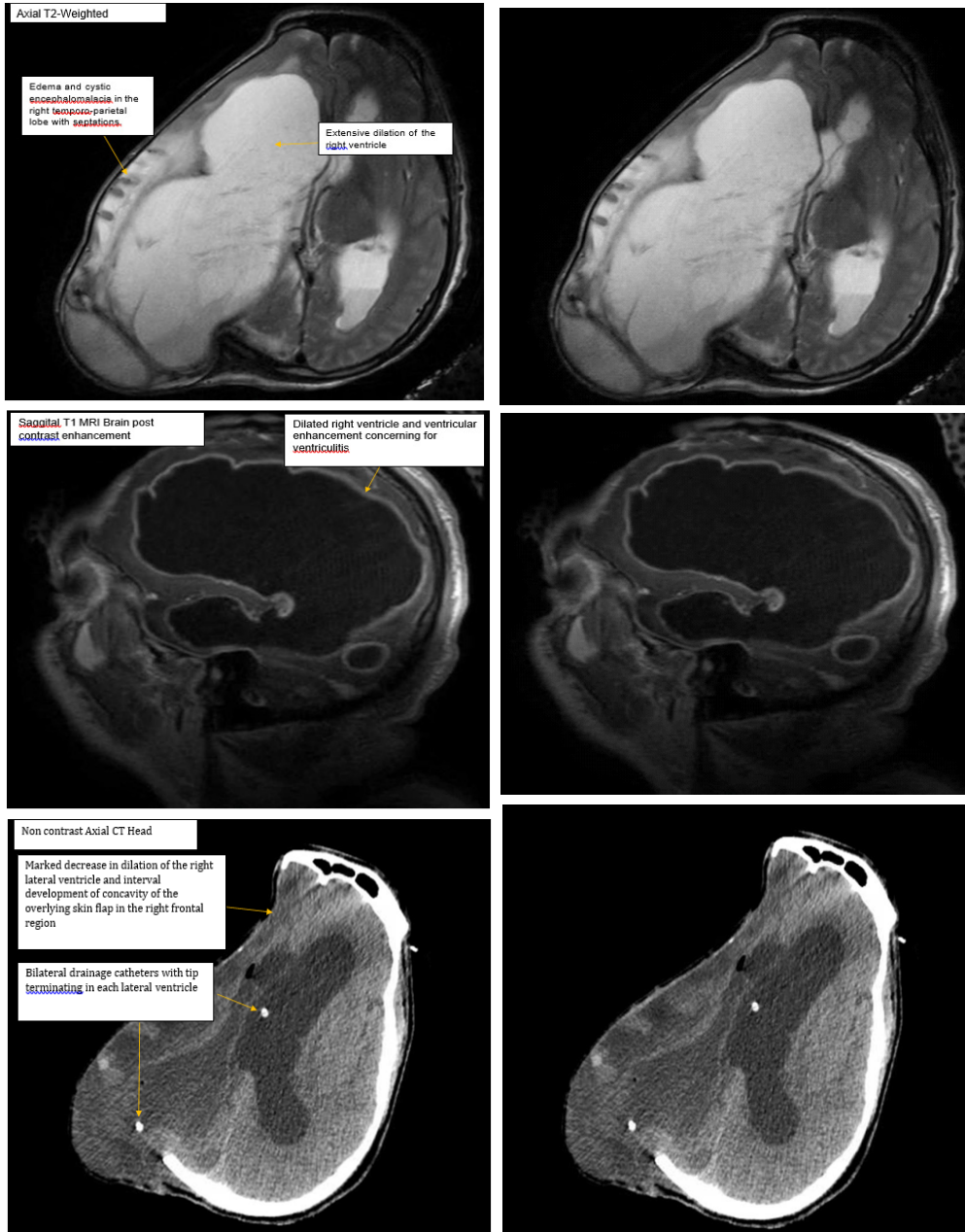


Figure 1: Clinical image.