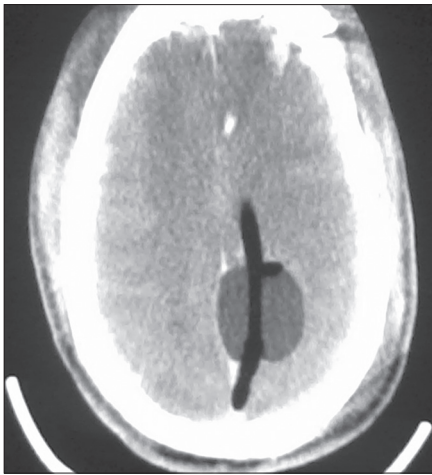


## An unusual cause of decrease in GCS in a patient with craniofacial injury

Sir,

A 40-year-old male with multiple injuries was referred to JPNA trauma centre 12 hours after road traffic accident. He had sustained craniofacial injury with fractured upper limb (LeFort type 2 facial injury and supracondylar fracture of right humerus). On examination, patient had an oxygen saturation SpO<sub>2</sub> of 95% on oxygen mask (with a flow rate of 5lts/min), a heart rate of 115/min and blood pressure 90/60 mm Hg. GCS on examination was E1V1M1. He had received initial care at the referring private hospital, where a Foley catheter was inserted in the right nasal cavity to control epistaxis, and a cast was applied for the fractured humerus. At the time of referral from the previous hospital the GCS was 10 (E2V4M4). In the time interval of 3 hours to arrival at our ED, the GCS had deteriorated to 3. A CT head on arrival showed that the tip of the Foley's catheter lay in the left parietal region intracranially with the inflated balloon located in the left centrum semiovale [Figure 1]. There was cerebral edema with parietal hypodensity, suggestive of an infarct. In view of the low GCS, it was decided to shift the patient to the ICU and manage him conservatively with ICP monitoring, controlled ventilation, and antibiotics. As the coagulation profile of the patient was normal, the



**Figure 1:** Plain axial CT head showing tip of Foley catheter in the parietal region

balloon of the Foleys was gradually deflated followed by removal of the catheter. A repeat CT showed no change in the size and extent of the infarct. Despite all efforts, patient expired on the 4<sup>th</sup> day of admission.

The initial management of craniofacial trauma is more challenging than the management of head trauma alone. The use of pressure application to control epistaxis is an age-old, time-tested method. Among many devices, Foley catheter is one of the more frequently used, especially in a resource-limited setting. This is despite the fact that the Foley catheter is not designed for this purpose and can cause various complications such as balloon malposition, bleeding, and pressure necrosis.<sup>[1,2]</sup> Since it is very difficult to ascertain the correct intranasal length required for successful hemostasis, chances of balloon malpositions are high. There have been earlier case reports where the balloon had been inflated in the intracranial cavity.<sup>[3,4]</sup>

Hence, we recommend that posterior nasal packing with Foley catheter should be discouraged in patients with craniofacial injuries. Endoscopic cauterization should be the preferred method. If at all a Foley catheter has to be used in an emergency, a few principles should be followed:

- Use of a large bore catheter as it will have less tendency to migrate intracranially<sup>[5]</sup>

- Advancing the catheter parallel to the floor of nasal cavity
- Advancing the catheter up to a distance of 11 to 13 cm and confirming the visualization of the catheter tip in the oropharynx
- Clinically and radiographically identifying the catheter tip before inflating the balloon.<sup>[4]</sup>

While the use of a Foley catheter for control of nasal bleeding has been described previously, and indeed the correct 'off-label' use of such a device may be a useful first aid, we wished to highlight the potential catastrophic consequences that such an approach can entail.

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