**Title:** An unusual cause of Chronic Headache

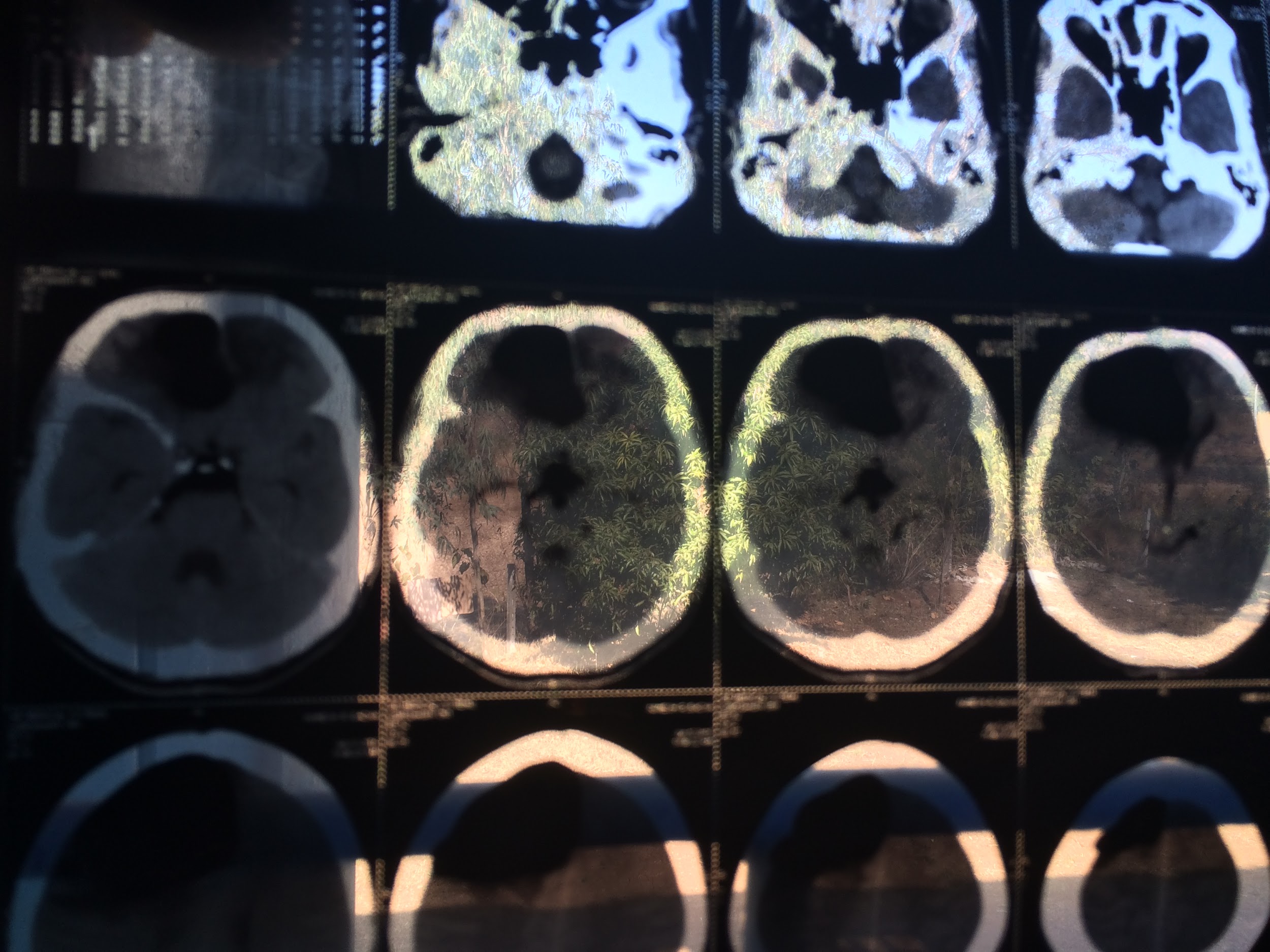
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**Learning Objective:** Evaluate chronic headache in a young male.

**Case:** A 16 year old male with no significant comes to the clinic with history of chronic headache for more than 1 year. He had suffered a skull fracture involving his right basofrontal region after a motor vehicle accident 2 years earlier. His headache is episodic and there is no particular location to it aggravated on neck flexion and no relieving factors. His headache is associated with episodes of vomiting that is occasionally projectile. He denies any relief to headache after the vomiting. He had been seeking treatment from various small clinics in India and also over the counter pain medication, without any relief. When asked for more symptoms, he casually reports that he has been having almost constant ‘running nose’ since the last few months. Suspecting possible CSF leak, the patient was sent for MRI of the brain that revealed significant Pneumocranium in the Rt frontal area pushing the brain matter towards the Left with a midline shift of 8 mm causing mass effect. There was also gliosis and herniation of brain parenchyma from the Rt side. The MRI also showed fractures of Rt Basofrontal bone and the Cribriform plate. The patient was referred for the Neurosurgical opinion and the surgery was planned in the next few weeks.

#### Discussion



Pneumatization of the cranium is a rarely encountered entity, with only 27 reported cases in the literature over the last century. It is increasingly being identified due to the wider availability of cranial CT scans. Case reports to date can largely be divided into 3 categories: 1) cranial pneumatization alone; 2) cranial pneumatization associated with pneumatization of the cervical vertebrae; or 3) cranial pneumatization associated with mastoid hyperpneumatization. We have summarized the reports. Pneumocranium may either be monitored closely, or surgical intervention may be indicated in cases in which symptomatic relief may be provided with an otological procedure, or in which the cranial defect is such that the risk of cavity infection and mass effect necessitates cranioplasty. Nasal fracture as a result of trauma to the midface is considered the most common of head and neck fractures. Of maxillofacial injuries, fractures of the nasal bones account for up to 39–45% of cases reported in adults, and up to 45% of injuries in children. Trauma to the nasal cartilage, often results in displacement, dislocation, or avulsion rather than true fracture. A history of epistaxis is noted, the severity of which depends on the extent of mucosal laceration sustained at the time of injury. Rhinorrhea may also be noted and, depending on the accuracy of the patient's description of his or her nasal discharge, may be indicative of trauma intracranially (eg, cerebrospinal fluid [CSF] rhinorrhea). Deformity of the nose and airway obstruction can be severe, but a history of insult, including fracture, obstruction, or reconstructive surgery, may interfere with determining the degree of the deformity sustained. CSF rhinorrhea indicates extension to the cribriform plate, frontal sinuses, or nasoethmoid complex.

Treatment is mainly surgical. Both open and closed reductions can be done based on the patient and the clinical scenario.