Spontaneous cerebrospinal fluid rhinorrhoea: a rare clinical entity

Kapil Mohan Rajwani,¹ Mike O'Connell,¹ Sorin Bucur²

¹Brighton and Sussex University Hospitals, Royal Sussex County Hospital, Brighton, UK
²Hurstwood Park Neurosciences Centre, West Sussex, UK

Correspondence to
 Kapil Mohan Rajwani,
 kapilrajwani@hotmail.com

DESCRIPTION

Cerebrospinal fluid (CSF) rhinorrhoea is usually secondary to severe head trauma. Spontaneous CSF leak is an infrequent entity and represents only 4% of CSF rhinorrhoea cases.¹

A 70-year-old obese woman (body mass index 36.5) was seen in outpatients with an 8-week history of clear discharge from her left nostril which was worse on exertion. She had a similar episode of left rhinorrhoea 4 months ago, which lasted about 4 weeks; it was self-limiting and resolved without surgical intervention. On endoscopy, a leak was identified just medial to the left middle turbinate.

Electrophoretic analysis of the nasal discharge was positive for Tau protein (β 2-transferrin), which is specific to CSF, establishing a diagnosis of CSF rhinorrhoea. A CT cisternogram located the site of the defect (fistula) to the left cribriform plate (figure 1). The patient underwent an endoscopic endonasal fistula repair under general anaesthesia and made an uncomplicated recovery. She was

symptom-free when followed up 1 month postoperative.

Persistent CSF rhinorrhoea is potentially fatal and can lead to meningitis in 50% of cases.² It is often confused with rhinitis or upper respiratory infection. Spontaneous CSF leaks are more common in obese women and in patients with evidence of raised intracranial pressure.³ CT cisternography is the diagnostic radiological investigation of choice as it pinpoints the site of the fistula.^{1 2} Endoscopic endonasal repair has a high success rate (85–95%), and in most cases, it has almost completely replaced the intracranial approach.¹

Learning points

- ▶ Cerebrospinal fluid (CSF) rhinorrhoea should be suspected in patients with persistent unilateral clear nasal discharge.
- ▶ The presence of Tau protein (β 2-transferrin) in nasal discharge establishes a diagnosis of CSF leak and a CT cisternogram identifies the site of the fistula.
- ▶ Endoscopic endonasal fistula repair is safe and has a high success rate.

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Figure 1 CT cisternogram showing defect in the left cribriform plate (arrow) with leak of contrast into the nose.

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