Unusual presentation of more common disease/injury

A bolt from the blew: rhinolith in the nose for more than 80 years

Mohammad Shebli Kermanshahi,¹ Patrick Jassar²¹Wye Valley NHS Trust, Hereford, UK²ENT Department, Hull and East Yorkshire Hospitals, Cottingham, UK**Correspondence to** Mohammad Shebli Kermanshahi; dr.moshebli@yahoo.com or patrick.jassar@hey.nhs.uk

Summary

Rhinoliths are calcareous concretions that are formed by the deposition of salts on an intranasal foreign body over a number of years. We describe a rare case of rhinolithiasis, whereby a small foreign body has been lodged in a man's nasal cavity for over 80 years. He presented to the ear, nose and throat clinic with a sore throat and an incidental finding of a rhinolith was made which was confirmed by x-ray. This was managed conservatively.

BACKGROUND

Foreign body of the nasal cavity is a common presenting symptom in general practice and ENT clinic. If not identified, this can form a rhinolith overtime and can become a challenging diagnostic entity. Rhinolith can be asymptomatic for a very long time, and it is certainly the case in our patient.

CASE PRESENTATION

An 85-year-old male patient was referred to the ear, nose and throat clinic with unrelated throat symptoms. He had no sinonasal symptoms. He was being treated for hypertension, but he had never been to hospital for any medical problems. As part of his examination, anterior rhinoscopy and fiberoptic nasal endoscopy was carried out

and revealed a large rhinolith in the posterior part of the left nasal cavity. The rest of the upper aerodigestive tract, oropharyngeal and neck examination was unremarkable. With regard to his throat symptoms, he was diagnosed with globus pharyngeus which was self-limiting. On further questioning, he recalled his mother telling him that he had inserted a bolt into his nose at the age of 3, which had not reappeared. Since then, he had no recollection of inserting anything else into his nose. The patient seemed to have a very reliable memory, and there seems to be no other explanation to the presence of this rhinolith.

Figure 1 Lateral facial x-ray. Rhinolith in the floor of the nasal cavity.

Figure 2 AP facial x-ray. Rhinolith in the left nasal cavity.

INVESTIGATIONS

Anteroposterior and lateral facial x-rays confirmed the presence of a radiopaque calcified rhinolith with the shape of a bolt discernible (figures 1 and 2)

DIFFERENTIAL DIAGNOSIS

Other possible diagnoses include calcification of a mycetoma (fungal ball in the nose) but the clinical appearance was not in keeping with this.

OUTCOME AND FOLLOW-UP

The patient was surprised to the finding as it had not bothered him for 82 years and he is still asymptomatic. He decided that as it had been there for over 80 years and as it had not caused any symptoms he would not have it removed. His throat symptoms completely resolved following reassurance that there were no positive findings on endoscopic examination of the larynx and pharynx.

DISCUSSION

A foreign body of the nasal cavity is a common presenting complaint in the paediatric age group in ENT. Frequently, these present within a few days with unilateral nasal discharge. If not recognised early, these patients may eventually present with a rhinolith a few years later.

Rhinoliths are calcareous concretions that are formed by the deposition of salts on an intranasal foreign body over a few years. Mostly an exogenous nidus has been found to be the causative agent, although it could occur in the absence of a foreign body.¹

Rhinolithiasis is certainly a recognised pathological occurrence with more than 700 cases reported in the literature² until January 2008 and a further 12 cases since then, although one that has been present for over 80 years certainly seems unusual. It was first described in 1654². 24% of cases are reported to be diagnosed incidentally when patients present with obstructive symptoms.² The location of the rhinolith is typically midway in the inferior meatus where the passage is narrowest as was the case here. A literature search revealed that the longest reported case of a foreign body causing a rhinolith is 20 years.³ The mechanism by which they form is postulated to be due to local nasal mucosal reactions as a result of infection, trauma and mechanical irritation. It has been demonstrated that this is capable of triggering crystallisation and

mineral deposition to form a rhinolith.² Initially, the symptoms of the foreign body lodged in the nose are mild and patients ignore them. After a latent period, symptoms may begin to appear. Patients often complain of long-term unilateral nasal obstruction and smelly, purulent rhinorrhea. Headaches, epistaxis and anosmia may also be seen. Currently, nasal endoscopic examination⁴ or direct visualisation is the most valuable diagnostic method. CT scan of the sinuses has also been used as a diagnostic tool. Many of these patients have associated diagnoses such as nasal septal deviation and rhinosinusitis.²⁻⁴ The treatment involves removal of the rhinolith and antibiotics for any concurrent infection. The diagnosis of our patient was made incidentally. However, it was confirmed through history, direct visualisation and facial x-rays. He had no other sinonasal symptoms or signs. His throat symptoms are unlikely to be linked to the presence of the rhinolith, as they were acute and resolved without the removal of the rhinolith.

Learning points

- ▶ A rhinolith can be present in the nasal cavity for over 80 years and still be asymptomatic and unproblematic.
- ▶ It should always be considered in patients complaining from long-term nasal obstruction alone or associated with purulent discharge and recurrent epistaxis.
- ▶ History and physical examination are important; however, the confirmation of diagnosis is made through direct visualisation, and imaging such as CT scan and x-ray.

Competing interests None.

Patient consent Obtained.

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