Rhinolith

By Sukumar Deyasi (Bareilly Cantt, India)

Excretory pathways for crystalloids and colloids are well known for stone formation. The nose is not an excretory organ. Its mucosa is bathed with its own secretion and that of the paranasal sinuses and the secretion cannot be labelled as rich in crystalloids. Rhinolith formation is a definite entity, though rare. Its nucleus, like that of any stone in the body, can be a piece of foreign body, organic, or, inorganic, or the inspissated dried product of infection.

Rhinolith has been reported to occur more frequently in females and the predominant site of formation is the lower half of the nasal cavity, though it has also been found in the maxillary antrum. Usually it consists of chiefly calcium and magnesium carbonates and phosphates.

Case Report

The patient was referred by a local Regimental medical officer in *December 1966*. The symptoms started $3\frac{1}{2}$ months earlier. The patient complained of unilateral blockage of the left nasal airway and loss of the sense of smell in the left side of the nose. He had also occasional blood-stained discharge from the left side of the nose and a persistent heavy feeling in the left side of the face. He emphatically stressed that up to $3\frac{1}{2}$ months earlier, he had had no nasal trouble, and had not consulted any doctor for nasal trouble. He was a strongly-built, tall junior commissioned officer aged 49 years with average intelligence, vegetarian in habit, coming from Haryana State with extremes of climate. He had fought in the Second World War in the Middle East and Italy, and on the present Indian borders, and he proudly stated that more than 20 years of his service career have been spent in deserts and in cold hills.

The nose did not show any changes externally. A deep greyish stony mass looking like a coral was visible blocking most of the left nasal airway and its anterior margin was about an inch back from alar margin. The nasal septum was deviated to the right side. The posterior part of the stone was seen as a projection peeping out of the left choana on post-nasal examination. There was a mild foul smell from the left side of the nose and a scanty yellowish discharge was noticed. The right side of the nose had normal mucosa and no discharge, though narrower than the left side. His throat and ears were found normal and he had normal hearing in both ears.

General examination was normal. He had no leucocytosis and W.R., Khan, V.D.R.L. were negative. The X-ray picture showed the position of the rhinolith (Figs. 1 and 2) and indicated that it was a much bigger stone that it was thought to be at the clinical examination.

On *31 December 1966*, under local anaesthesia, first an attempt was made to lift out the stone from its bed but it was found deeply embedded in the mucosa of the floor and on both sides. A curved incision of about $1\frac{1}{2}$ in. long was made

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FIG. 1.
Postero-anterior view showing the rhinolith.

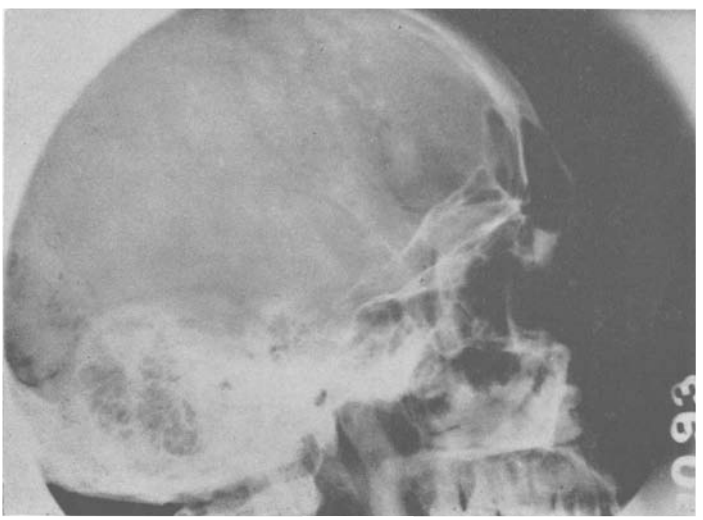


FIG. 2.
Lateral view showing the position of the rhinolith.

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along the left side of the ala of the left nostril under infiltration anaesthesia. The stone was moved, broken with gouge forceps and removed piecemeal. All the pieces collected together on a piece of lint indicated that it was a big stone (Fig. 3). The posterior piece had to be forced out of the choana and the patient hawked it out of his mouth. There was no unusual bleeding and no foreign body noticed. The stone was found to be of moderate hardness. The incision area was stitched and the nose was packed with roller gauze. The patient had a post-operative course of penicillin and streptomycin combined. He reported partial recovery of the sense of smell in the left side of the nose and disappearance of the heavy feeling in the left side of the face. He can breathe well through the left nasal airway, which is roomier than the right nasal airway because of the resultant shrinkage of the turbinates and deviation of the septum to the other side.

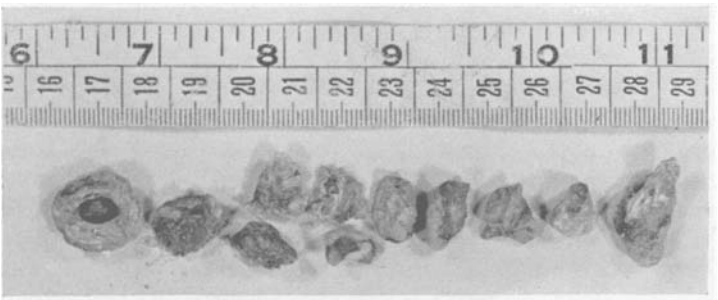


FIG. 3.
Big pieces of the broken rhinolith collected together. Weight is 26 gm.

Comments

Lateness of presentation is a striking feature here, though I am confident that the stone could not have formed in such a short period and must have taken several years to develop. I do not think that the stone pushed the nasal septum to the other side. He had congenital deviated septum with roomy left nasal airway.

A part of the stone on analysis was found to be inorganic in composition and was composed of chiefly carbonate, oxalate and phosphate of calcium. It gave negative tests for triple phosphates, ammonium urate, xanthine, cystine and uric acid.

Summary

A case of rhinolith is presented. Though the stone was large, presenting symptoms appeared late. Cause of formation of the rhinolith cannot be determined.

Acknowledgment

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Sukumar Deyasi

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Military Hospital,
Bareilly Cantt.,
(Up), India.

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