Benign metastasizing thyroid struma presenting as nasal polyp

By S. K. Vishwakarma, S. P. Tyagi, and Ansar A. Khan

Follicular carcinoma of the thyroid gland may remain undetectable without causing any obvious swelling in the neck as the lesion though represented by a single microscopic field may yet metastasize early owing to the tendency to invade the blood vessels (Robbins, 1962). The lungs, bones and other organs are the commonest sites of secondary metastases which may present a variable picture of histology. Sometimes, the metastases may resemble completely normal thyroid tissue and these are the cases which are labelled as 'benign metastasizing struma' (Anderson, 1957). The authors, however, have not found a report of this type of metastasis in the nasal cavity in the literature and this is the reason for the case being reported.

Case report

N.D., a Hindu female aged 60 years, presented herself in the out-patient with the complaint of blockage of the right nostril, a slowly growing mass with occasional bouts of bleeding from the nose for the last seven months.

Local nasal examination showed a soft smooth, slightly tender, greyish-red polypoidal mass filling the right nostril (Fig. 1) and the part protruding

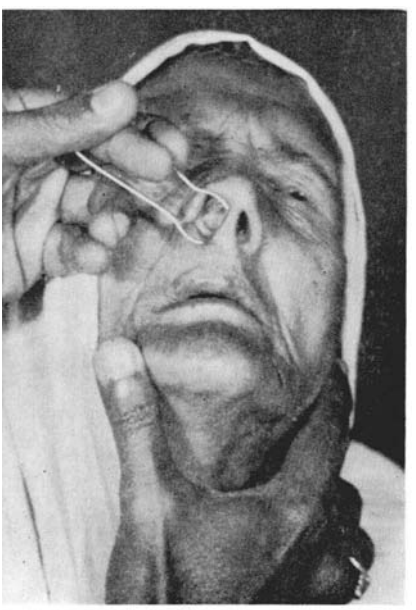


Fig. 1.
Showing the growth filling the right nostril.

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bore a rough excoriated appearance. It appeared to have wide attachment to right lateral nasal wall and bled profusely when probed. Slight fullness and tenderness by the right side of the nose was also observed. Other E.N.T. examinations were normal except that she had bilateral sensorineural deafness.

No obvious swelling was noticed in the neck. Other systemic examinations were normal. Liver and spleen were not palpable. Skiagrams of the limbs and skull did not reveal any abnormal features except bony erosion of the right lateral nasal wall (Fig. 2). Skiagram of the chest showed evidence of secondaries in the middle lobe of the left lung (Fig. 3).

Microscopic pathology

H and E stained section of the tissue removed on biopsy from the growth showed collection of inflammatory cells particularly neutrophils, fibrin, blood and a few bacterial colonies. Just beneath this area of acute inflammation was present the tumour mass comprising thyroid follicles of varying sizes. Some of the follicles were small with little or no colloid material while in other follicles there was sufficient amount of deeply eosinophilic colloid material (Fig. 4). The lining epithelium was low cuboidal type with cells having vesicular nuclei. At places the epithelial cells were flattened. Some of the follicles were showing

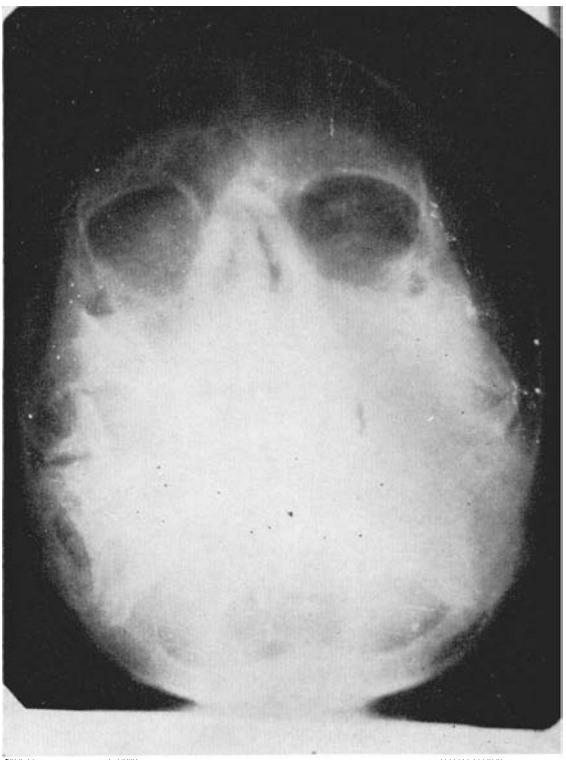


FIG. 2.

X-ray Paranasal sinus. P.A. view showing destruction of right lateral nasal wall.

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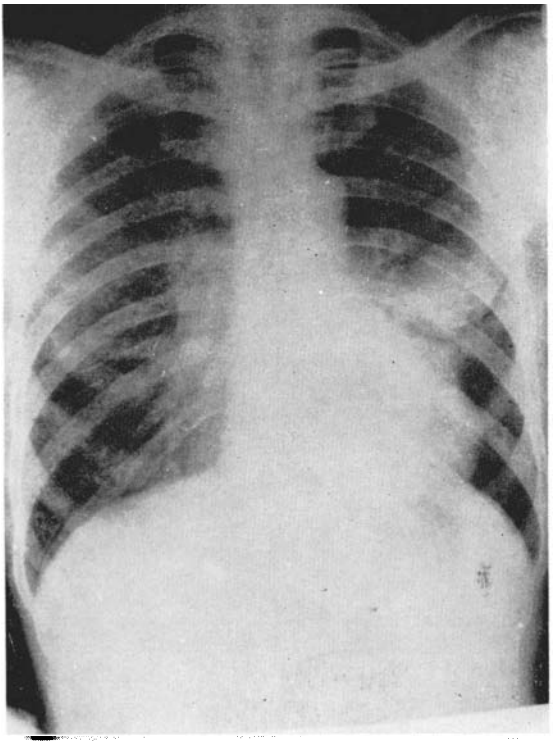


FIG. 3.
Showing presence of a translucent shadow in the middle lobe of the left lung.

scalloping though papillary projections were absent. The follicles were separated from each other by a highly vascularized cellular stroma.

Reviewing the clinical picture, skiagram findings and histopathological features of the growth further investigations were carried out to determine the function of the thyroid and to confirm the diagnosis. The values obtained were highly suggestive of malignant change and were as follows:

1. Basal metabolic rate:	+20.
2. Radioactive Iodine 131 uptake by the thyroid gland:	92 per cent of the dose within 24 hours.
3. Serum Protein bound Iodine:	18 μg. per 100 ml.

Discussion

The outstanding features of the case under review were the presence of a greyish-red polypoidal mass filling the right nostril with recurrent epistaxis in a female of 60 years, local bony destruction, a translucent shadow in the left lung and normal thyroid tissue on histology of the growth. Advanced age with bony lesions and frequent bouts of nasal bleeding aroused suspicion of malignancy because it is possible to have a normal thyroid parenchyma at metastatic site in a case of follicular adenocarcinoma. This was further con-

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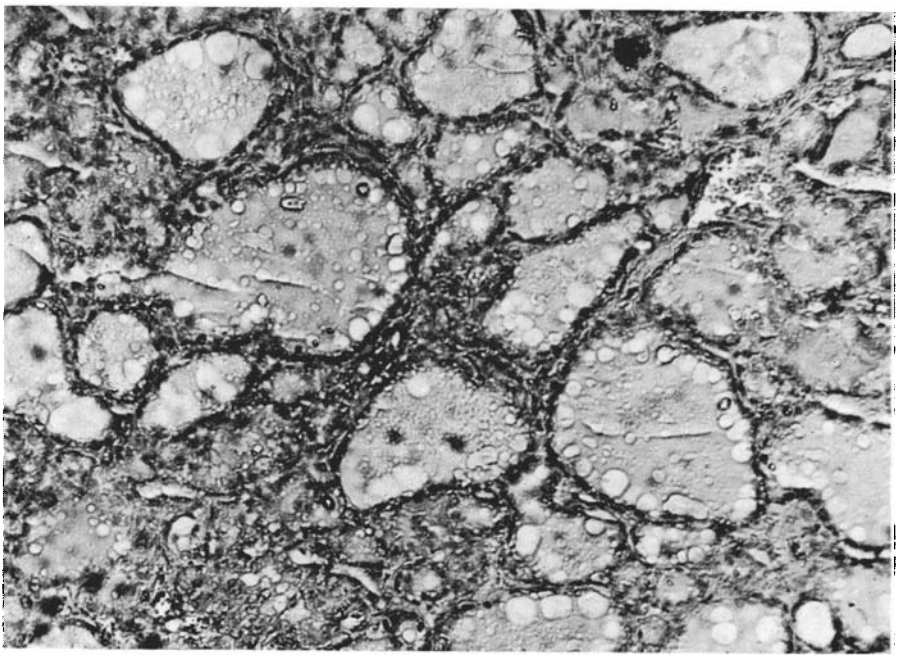


FIG. 4.

Photomicrograph of the polypoidal mass from the nasal cavity showing well defined thyroid follicles of varying sizes lined by flattened or low cuboidal epithelium and separate by vascularized connective tissue stroma. The follicles are filled with deeply stained colloid material and showing scalloping. H and E — 60.

firmed by the biochemical findings which were highly suggestive of malignant change in the thyroid gland. In spite of this, palpation revealed a normal thyroid gland and no nodule could be detected. However, this may be easily explained on the basis that the primary tumour in the thyroid may be situated either at the back or be very small so that it could only be detected at operation. Maybe at times serial section of the gland becomes necessary in order to detect the presence of a small microscopic nodule of malignancy.

This could not be made possible as the patient refused to undergo exploration of the thyroid. The sites of benign metastasizing struma are usually in the neck in such sites as the posterior triangle, supraclavicular fossa, lateral to carotid body, mastoid area or retrosternal region. Sankaran (1962), reported two such cases, one was the female with secondary adenomatous thyroid tissue in the right parotid gland and the other a male with a swelling in the supraclavicular and subdigastric regions. In both a palpable tumour mass was present in the thyroid gland. We did not find any thyroid tumour.

Summary

A case of 'benign metastasizing struma' occurring in a female aged 60 years has been reported. The salient features of the case were the presence of a poly-

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poidal growth in the right nostril, local erosion of the right lateral nasal wall and a normal thyroid tissue on histopathological examination of the growth.

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Jawaharlal Nehru Medical College,
Aligarh Muslim University,
Aligarh, India.

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