Pharyngeal leiomyosarcoma

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MALIGNANT tumours of smooth muscle origin are extremely rare in the regions of the pharynx and upper respiratory tract. On review of the literature, the authors found only one similar case, that of Fuller *et al.* (1966).

Case report

A 55-year-old male, J.N., was admitted to the E.N.T. department of Seth V. S. General hospital on 24 August 1968, with hoarseness of voice of one year's duration. Later he developed difficulty in taking solid food for the past 3 months. There was no history of pain.

The patient was well-built and fairly well nourished. He was anaemic and there was no lymphadenopathy. The oral cavity was normal. Laryngoscopic examination showed a large solitary tumour in the postcricoid region involving both arytenoids. Examination of cardiovascular, respiratory system and the abdomen did not reveal any abnormality.

Investigations

The following investigations were done:
Haemoglobin: 12·6 g. %
Leucocyte count: 6,300/c.mm.
Differential leucocyte count
Neutrophils: 79%
Lymphocytes: 16%
Eosinophils: 2%
Monocytes: 3%
Urine: normal
Blood urea: 22 mg.%
Radiogram chest: normal
Barium meal study: normal

Operation

The patient was operated upon under general anaesthesia on 4 September 1968. Laryngopharyngocervical oesophagectomy was carried out extending down to the 4th tracheal ring. Also terminal tracheostomy and oesophagostomy was done. On operation, a growth of 5 cm. in diameter, was seen arising from posterior pharyngeal wall involving the aryepiglottic folds, hypopharyngeal mucosa and extending up to tonsillar fossa. Growth was more on the left side of pharynx.

The patient died on 15 September 1968.

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Pathology

Gross examination: Specimen received showed a growth 4 × 3 cm. in size, arising from posterior wall of laryngopharynx and extending forward and upward to involve aryepiglottic folds. Growth was hard in consistency and cut surface showed whitish grey homogeneous appearance (Fig. 1). Multiple sections were taken for processing.

Histological examination: tumour was composed of long spindle-shaped cells accompanied by some straight reticulin fibres which were arranged in interlacing bundles. Nuclei of the cells were elongated, with blunt ends, and were sharply outlined by pink-staining cytoplasm in which myofibrils could be demonstrated. At many places giant cells were seen with bizarre nuclei (Fig. 2). No striations were visible even on phosphotungstic acid haematoxylin stain. Mucosal epithelium overlying the tumour showed marked hyperplasia.

Comments

Leiomyosarcoma is a malignant tumour of smooth muscle origin. It is commonly found in the uterus and gastrointestinal tract. Rarely tumours have



FIG. 1.
Operated specimen showing tumour of posterior pharyngeal wall (marked with arrow).

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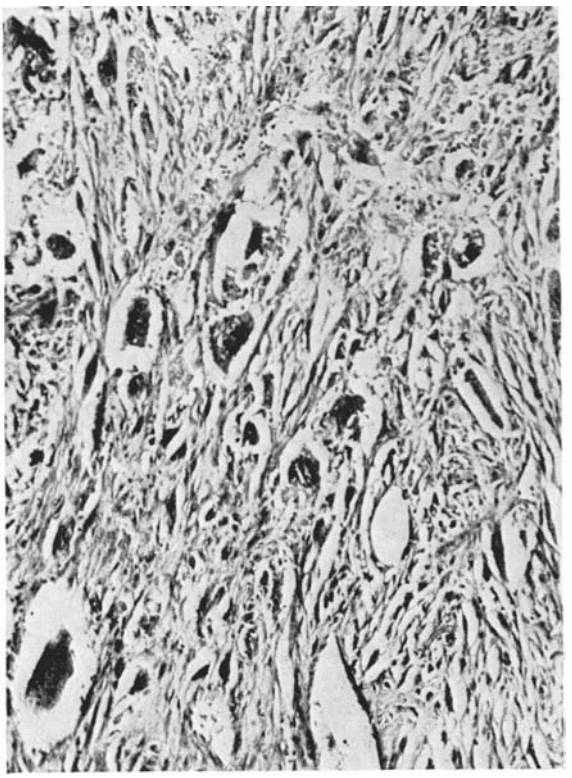


FIG. 2.
High-power photomicrograph showing pleomorphic leiomyosarcoma with multiple mitoses. (Haematoxylin and eosin; × 400.)

been noted in the soft tissues. On file at the Armed Forces Institute of Pathology, as of 1960, there were 462 leiomyosarcomas, 125 of which (27 per cent) arose in soft tissue sites. In order of frequency, their distribution is as follows: retroperitoneum, 76; extremities (deep tissues), 23; subcutaneous, 10; omentum and mesentery, 8; venous system, 3; abdominal wall, 2; orbit, 2; and mediastinum, 1 (Shuman, 1966).

Thus it is evident from the literature that pharyngeal leiomyosarcoma is extremely rare and probably the present case is the second of its type.

To account for the origin of this tumour in areas normally deficient in smooth muscle, three explanations are given. Such tumours arise from (1) aberrant undifferentiated mesenchyma, (2) smooth muscle elements located in the walls of blood vessels, or (3) both sources.

Summary

A report of a case of pharyngeal leiomyosarcoma is presented.

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