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Solitary plasmacytoma of the nasal passage - A case report

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SUMMARY

Extramedullary plasmacytomas are rare tumors usually appearing in the upper respiratory system or the alimentary tract in the fifth and sixth decades of life. A little over two hundred cases have been reported in the literature. The association between solitary plasmacytoma and multiple myeloma has been emphasized by Helmus, 1964; Mattila, 1965.

Approximately 90% of the extramedullary plasma cell tumors occur in the head and neck region and are therefore within the province of the otolaryngologist. A case of solitary nasal plasmacytoma treated with combined surgical and radiation therapy is presented. The six years follow up supports the succes of therapy.

CASE-REPORT

A 21-year-old male was seen by an ophthalmologist in january 1971 for epiphora. After several weeks of topical antibiotic treatment, the patient was referred to the E.N.T. Service for further evaluation. At that time he had right exophthalmos and right nasal obstruction (Figure 1). Examination revealed a soft, friable, polypoid, pale mass completely filling the right nasal passage. The septum was deflected to the opposite side and a tumor projected into the nasopharynx without any evidence of origin there. Pertinent ophthalmoscopic findings included 1.5 diopter myopia, normal visual fields, and 2+ fullness of the ophthalmic veins without a choked disc. Extraocular movements were normal. The rest of the physical examination was within normal limits and specifically, there was no evidence of lymphadenopathy or hepatosplenomegaly. Laboratory tests including CBC, urinalysis, liver profile, chest x-rays were normal. Sinus x-rays showed opacified right maxillary and ethmoid sinuses and a globular mass in the nose with destruction of the medial and superior walls of the right maxillary sinus. A bone survey, bone marrow aspirate examination, protein electrophoresis, urinalysis for Bence-Jones protein, and serum uric acid levels were unremarkable. Cerebral angiography demonstrated filling of the right internal maxillary artery tributaries. Because of the vascularity, pre-surgical biopsy was not done.

Approximately five months after the onset of symptoms, the area was explored through a lateral rhinotomy, and the mass was removed in sections. The right nasal bone and nasal process of the maxilla were destroyed by the tumor. The mass was approximately $6 \times 8 \times 2$ cm in size. A right ethmoidectomy and partial superior maxillectomy with preservation of the orbital contents completed the surgical procedure.

About one month postoperatively, the patient received a 3600 rad course of

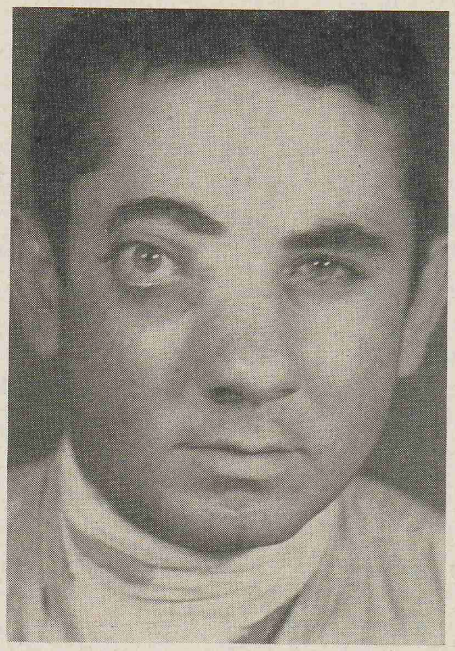

Figure 1. Pre-operative appearance.
Note right exophthalmos.

Co 60 radiotherapy via 5×7 cm portals. The exophthalmos regressed, and he has remained tumor free, enjoying a normal life in six years of follow-up.

Pathologically, the gross appearance was dark green, irregular, polypoid, friable soft tumor mass which cut easily on sectioning. Microscopically, a flat, cuboidal epithelium with numerous sheets of plasma cells infiltrate was noted. The plasma cells were larger than normal with varying shapes. Large red staining nucleoli and Russell bodies were seen. The nuclear cytoplasmic ration was altered (Figure 2).

DISCUSSION

A definite diagnosis of solitary plasmacytoma is established only after histopathological examination. In addition, an ardent search for evidence of multiple myeloma must be negative.

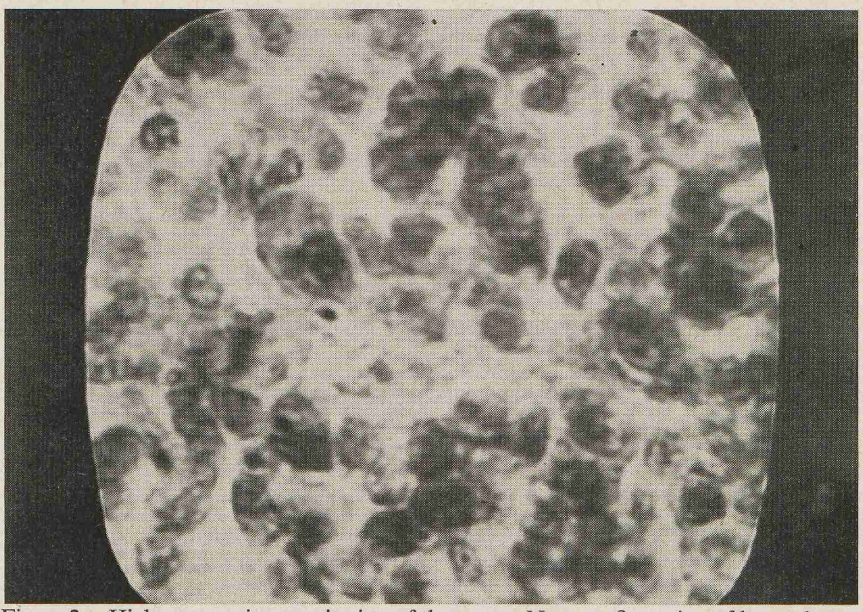

Figure 2. High power microscopic view of the tumor. Note configuration of large plasma cells and altered nuclear cytoplasmic ratio.

Systemic involvement after successful control of the primary may occur many years later. Generally this disease is less common before the fifth decade and as noted before, it is commonly a surprise diagnosis. The tumor has a propensity to reappear as a lympatic or osseous metastasis. Evidence of this type of extension carries a guarded prognosis (Batsakis, 1964; Helmus, 1964).

Plasma cells may be closely related to lymphocytes and share a common stem cell. A useful classification divides the neoplasm into (1) plasma cell myolomatosis with multiple lesions, (2) solitary bone tumor, (3) solitary soft tissue tumor (Mattila, 1965). Treatment modalities include surgery and/or radiotherapy and satisfactory results have been reported with both. We have been gratified by excellent therapeutic response in our patient after a six year follow-up.

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