Sinonasal Lymphoma: A Rare Pathology Presenting With Common Post-influenza Symptoms

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INTRODUCTION

During maturation stages of the lymphoid system, malignancy of lymphocytes known as lymphoma can develop. Diffuse large B-cell lymphoma (DLBCL) is one the most common lymphoma subtypes, and accounts for 25-30% of all non-Hodgkins lymphomas [1]. Predominant sites of its extra-nodular occurrence is gastrointestinal tract (GIT), with stomach being the most common (60-75%), followed by small intestines, caecum, large intestines and rectum. Most patients presented with vague GIT symptoms such as abdominal pain, nausea, vomiting and diarrhoea [2]. On the contrary, its occurrence as a sinonasal tumour is extremely rare. Furthermore, sinonasal malignancies in general are uncommon, constituting 0.2-0.8% of all cancers and 3% of all aero-digestive tract malignancies [3]. This report illustrates a case of sinonasal lymphoma presenting with a persistent right-sided epistaxis, requiring anterior nasal packing and examination under general anaesthesia. Early diagnosis and staging could be established, thus effective treatment and good prognosis could be achieved.

CASE PRESENTATION

A 65-year-old lady with a known history of diabetes mellitus, hypertension and bronchial asthma was referred to Otorhinolaryngology Department for a persistent epistaxis, preceded by an influenza infection three weeks prior. Her nasal symptoms began with right-sided nasal obstruction and purulent rhinorrhea, proceeded with episodes of right-sided epistaxis which eventually did not resolve spontaneously on the day of presentation. There was no significant orbital or intracranial symptoms. All cranial nerves were intact. Cold spatula test confirmed unilateral right nasal obstruction. Nasoendoscopy revealed a soft, friable reddish sinonasal mass extending from the right middle meatus until the nasal floor. Biopsies of the mass was taken, which inadvertently debulked a significant amount of the mass, enabling subsequent visualization until the posterior choanae. There were no masses of note seen in the nasopharynx. Right anterior nasal packing was performed to achieve haemostasis. Removal of nasal packing was performed in the operation theater, followed by examination under general anaesthesia and arresting of any further haemorrhage. The patient was discharged well with no further episodes of epistaxis. The histopathological examination of the sinonasal biopsy confirmed the diagnosis of diffuse large B-cell lymphoma with germinal center B-cell subtype. The patient was then scheduled for computed tomography (CT) for staging and was referred to the Haematology Unit for further management.

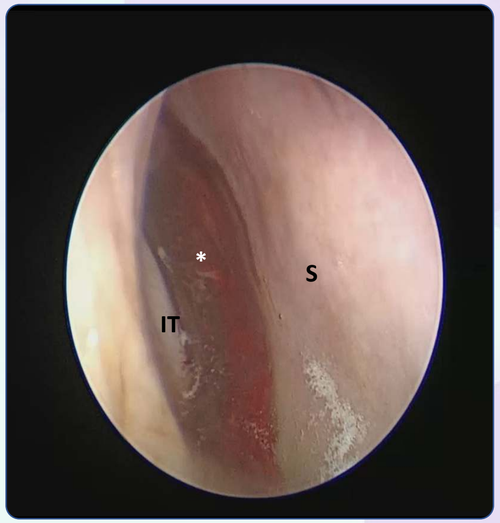

Figure 1: Initial nasoendoscope showing sinonasal lymphoma (*) occupying the entire nasal cavity, between the right inferior turbinate (IT) and nasal septum (S).

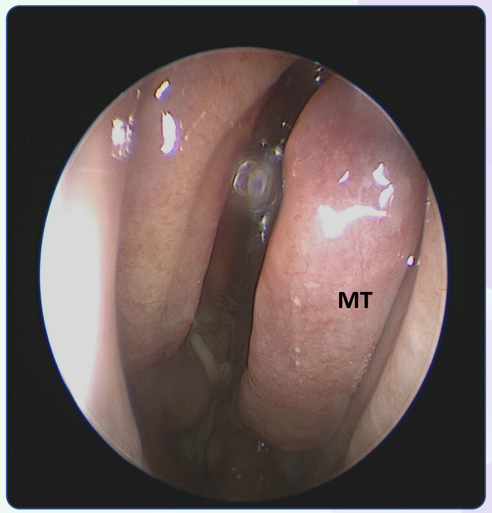

Figure 2: Upon follow up, after the sinonasal mass debulking, it is seen lateral to right middle turbinate (MT)

DISCUSSION

Due to its rare occurrence, clinicians often face challenges in managing sinonasal malignancies. The tumours in the sinonasal region has the greatest histological variations among other regions in the human body. Tumours arising from this region are usually classified as benign or malignant, amongst which the most common benign sinonasal tumours would be nasal polyposis, inverted papillomas and osteomas. The commonest sinonasal malignancy is squamous cell carcinoma which encompasses 80% of all nasal and paranasal sinus malignancies [4]. Extra-nodal non-Hodgkin lymphomas rarely occur in the sinonasal tract, comprising only 1% of all head and neck cancers. The usual site for its occurrence is the gastrointestinal tract, liver, soft tissues and dura. [5]. Sinonasal tumours mostly arise from maxillary sinus (60%), followed by the nasal cavity itself (20%), ethmoid sinuses (5%) and 3% from sphenoid and frontal sinuses. [6]

T-cell or Natural Killer Cell phenotype lymphoma is commonly found in Southeast Asia region as sinonasal tumour. On the contrary, sinonasal B-cell origin lymphoma is usually found in Western population. [7][8]. The incidence of sinonasal lymphomas is much higher in Asian countries compared to Western countries, constituting 2.6 - 6.7% of all lymphomas in Asia and being the second most common site, preceded only by the GIT. [9] Typically, patients with sinonasal lymphomas presented with nasal obstruction, epistaxis and nasal swelling. Proptosis and hard palate perforation is uncommon. Peak age group affected is the 60 - 70 year-old group. Standard treatment for sinonasal lymphomas is chemotherapy with R-CHOP regime (rituximab, cyclophosphamide, doxorubicin, vincristine, and prednisone). Due to its high risk of central nervous system spread, intrathecal chemoprophylaxis using methotrexate is often given in conjunction. [10] In summary, this case illustrates an extremely rare malignant pathology in the sinonasal region, presenting with a seemingly innocuous set of symptoms, highlighting the importance of never trivialising patients' symptoms.

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