Case Report

Primary inflammatory myofibroblastic tumor of stomach—report of a very rare case

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Abstract

Primary inflammatory myofibroblastic tumor (IMT) is a very rare tumor arising from stomach and it closely mimics gastric GIST. It usually affects the lung and found in children and young patients. The diagnosis of gastric IMT is usually done post-operatively by immunohistochemistry examination where it is seen that IMT is positive to SMA and vimentin. Complete surgical excision is the treatment of choice and local recurrence is usually seen in incompletely resected cases.

Keywords: Gastric, myofibroblastic tumor, surgical resection

Introduction

Primary inflammatory myofibroblastic tumor (IMT) is found commonly in lungs of young adults and children and is a very rare tumor of stomach in adults.[1,2] It encompasses a spectrum of myofibroblastic proliferation along with varying amount of inflammatory infiltrate. A number of terms have been applied to the lesion, namely, inflammatory pseudotumor, fibrous xanthoma, plasma cell granuloma, pseudosarcoma, lymphoid hamartoma, myxoid hamartoma, inflammatory myofibrohistiocytic proliferation, benign myofibroblatoma, and most recently, inflammatory myofibroblastic tumor. The diverse nomenclature is mostly descriptive and reflects the uncertainty regarding true biologic nature of these lesions. Recently, the concept of this lesion being reactive has been challenged based on the clinical demonstration of recurrences and metastasis and cytogenetic evidence of acquired clonal chromosomal abnormalities. We hereby report a case of inflammatory pseudotumor and review its inflammatory versus neoplastic behavior.

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It was previously known as, inflammatory pseudotumor, fibrous xanthoma, plasma cell granuloma, pseudosarcoma, lymphoid hamartoma, myxoid hamartoma, inflammatory myofibrohistiocytic proliferation, benign myofibroblatoma, and most recently, inflammatory myofibroblastic tumor.[3] IMT does not have any specific clinical manifestations or imaging characteristics. Its biological behavior range from benign to aggressive lesions and may be locally recurrent but it rarely metastasizes to distant organs.[4]

Case Report

A 25-year-old lady presented with pain and swelling in upper abdomen of one-month duration. Pain was dull aching and burning in nature. The swelling was insidious in onset, approximately 10cms in diameter. Her appetite was normal. Upper GI Endoscopy showed external compression from anterior wall of the stomach. Ultrasonography and CECT of abdomen showed a large heterogeneously enhancing mass lesion arising from anterior wall of the body of stomach. Pre-operatively, a diagnosis of GIST (Gastrointestinal stromal tumour) was made. At operation, an exophytic growth emanating from the body and antrum of stomach was seen with no infiltration to adjacent organs was noted. Distal gastrectomy [Figure 1] with roux-en-Y gastrojejunostomy was done. Histopathological [Figure 2] and

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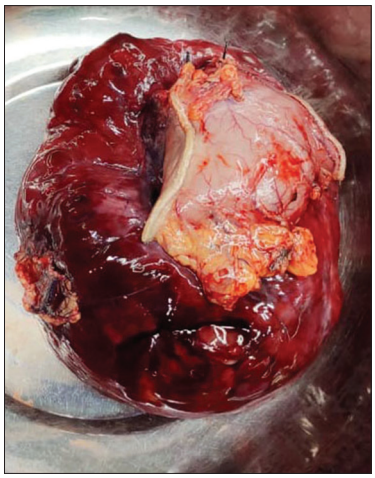

Figure 1: Showing resected IMT with part of stomach

immuno-histochemical examinations confirmed the diagnosis of IMT. The tumour was weakly positive for SMA (Smooth muscle actin) and vimentin. CD117, CD34, and S100 were negative.

Patient recovered well and was doing well till 6 months after surgery.

Discussion

IMT may be pre-disposed by infections, autoimmune or neoplastic in origin.[5] It usually involves lung and affect children and young adults; however, IMT can affect any organ of the body and any age group of patients.[2] Primary IMT of stomach is an extremely rare entity and usually confused with GIST, unless correlated with immunohistochemistry study post-operatively.[6] IMT is usually positive for SMA (Smooth muscle actin) and vimentin[7] similar to the present case. Computed tomographic scan usually shows well-demarcated soft tissue masses with heterogeneous enhancement and areas of necrosis.[8] Complete surgical resection is usually the sufficient treatment with subsequent follow-up.[2] Gastric IMTs have relatively good prognosis, but recurrence rate of approximately 15% to 37% have been seen within a year after surgery.[1] Chemotherapy and radiotherapy are advocated for cases with recurrence or metastasis.[9] Cheng B *et al.*[10] also reported recently a similar case of primary gastric IMT involving the gastric antrum and managed successfully by laparoscopic distal gastrectomy.

Conclusion

Primary gastric IMT is a very rare disease and very closely mimics gastric GIST. Only post-operative immunohistochemistry examination can differentiate IMT from GIST, which stains positively for SMA and vimentin. When resected completely, the prognosis is usually good. Hence, it is emphasized particularly for the benefit of the rural surgeons that gastric IMT should be one of the differential diagnosis in cases of exophytic growth arising from the stomach.

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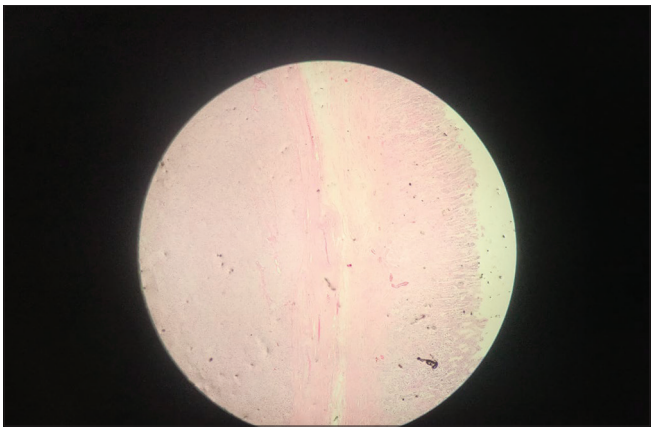

Figure 2: Showing histopathological findings of IMT

Conflicts of interest

There are no conflicts of interest.

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