**Case Report**

**Inflammatory myofibroblastic tumour of the Stomach: A rare case presentation with review of literature**

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**Abstract**

An inflammatory myofibroblastic tumour (IMFT) is a rare disease entity arising mainly in pulmonary site but now extrapulmonary sites are also reported in literature including genitourinary tract, gastrointestinal tract, soft tissue, orbit and bones. IMFT is always in debate about its inflammatory origin or being a tumour, and also is benign or malignant and also regarding the adjuvant treatment. Here we present the case of a primary stomach IMFT in an adult man and a review of the literature.

**Keywords:** Inflammatory myofibroblastic tumour (IMFT), Pulmonary, Extrapulmonary, tumour

1. **Introduction**

An inflammatory myofibroblastic tumour (IMFT) is a rare disease entity arising mainly in pulmonary site but now extrapulmonary sites are also reported in literature including genitourinary tract, gastrointestinal tract, soft tissue, orbit and bones. IMFT are tumours characterized as low-to-intermediate grade sarcomas. In the literature IMT is most commonly referred as ‘inflammatory pseudotumor’, ‘plasma cell granuloma’, ‘pseudosarcoma’ or ‘fibromyxoid lesion’. Few cases of IMFT stomach are reported in literature. Here we present a case of primary stomach IMFT in an adult man and a review of literature.

2. **Case Report**

A 28 years man presented with off & on pain in central abdomen, insidious, moderate grade, not radiating; often associate with vomiting, non projectile since last 3 months duration. On physical examination abdomen was soft and non tender, no lump was palpable. His laboratory tests were within normal limits. CXR was normal. USG abdomen showed a hypoechoic round mass arising exophytically from pylorus of the stomach. Abdominal computed tomography showed a soft tissue density mass (3.5cm x 3.0cm) arising from lesser curvature of stomach, rounded, with well defined margins showing mild enhancement with contrast (Figure 1). No evidence of lymphadenopathy was noted.

Clinical diagnosis of Gastro Intestinal Stromal Tumours (GIST) was made. Exploratory laparotomy was done. Per-operative findings showed a rounded well circumscribed mass projecting into the lumen of stomach arising from the lesser curvature of the stomach, not fixed to adjacent surrounding structures (Figure 2). Wedge resection of the mass with clear wide margins was done. Post operative course was uneventful. Macroscopic examination revealed whitish tumour 4cm x 3cm x 3cm. Histologically, the final diagnosis of Inflammatory Myofibroblastic tumour (IMFT) of stomach was made.

Patient was doing well up to last follow-up of 03 months.

**Figure 1:** A NECT axial; B: CECT axial; C: Coronal reconstruction images showing soft tissue density mass (3.5cm x 3.0cm) arising from lesser curvature of stomach, rounded with well defined margins showing mild enhancement with contrast. No evidence of lymphadenopathy
3. Discussion

IMFT is always in debate about its inflammatory origin or being a tumour, and also benign or malignant and also regarding the adjuvant treatment. An IMFT most commonly presents as a localized mass with clinical symptoms dependant upon its site of origin. IMFTs are classified as tumours with an intermediate biological potential, in that local recurrences may occur and there is a rare possibility of distant metastasis. In presented case, localized swelling in the stomach with no metastasis was found.

IMFTs occur most commonly in children and adolescents, although reported in all age groups. The most prevalent anatomical sites for IMTs to occur include lung, abdomino-pelvic and retroperitoneal areas, although any site may be involved, so these tumours are classified as pulmonary and extrapulmonary. Patients may present with non-specific constitutional symptoms of fever, weight loss and malaise in 15 - 30% cases and associated with symptoms of origin of the site of the mass. These systemic symptoms frequently resolve following surgical excision and tumour recurrence may be marked by a return of clinical symptoms. In some cases, the mass may be detected after an extensive work-up of fever of unknown origin. Our case presented with abdominal symptoms.

IMFTs pathologically resemble a neoplastic process but are theorized to arise from an unknown inflammatory event. The pathogenesis of IMT remains unclear, although various allergic, immunologic, and infectious mechanisms have been postulated. Histologically IMFT exhibit a heterogeneous appearance and is a disease characterized by tumorous lesions consisting of myofibroblastic spindle cells proliferation with a compact myxoid pattern and inflammatory cells usually comprised of plasma cells, lymphocytes, eosinophils and neutrophils that occur primarily in the soft tissues and viscera of children and young adults. The spindle cells possess the morphological appearance of myofibroblasts. Immunohistochemistry of the spindle cells reveal reactivity for smooth muscle actin and desmin, and ultrastructural studies reveal a predominance of myofibroblasts and a smaller fibroblastic component.

Total excision is the most effective and accepted treatment of choice for localised, non metastatic IMFTs. Within a year of a surgery, 15% to 37% cases of primary gastric IMT endup with tumour recurrence. The local recurrences are not uncommon in difficult to completely resect cases. IMFTs rarely metastasize. No adjuvant treatment is standardized till date but Steroids with Cox 2 inhibitors have been used to treat residual, multiple and unresectable lesions with good results. In local recurrences, re-excision if possible followed by steroids and / or cox 2 inhibitors, radiation and chemotherapycl use has also been reported.

In every primary stomach IMFT case a long- term clinical, radiological and laboratory follow-up is indicated. Despite the pathologic findings and their apparent prognostic implications, most affected individuals, regardless of the primary site, have had favourable clinical outcomes.

References