Wandering spleen presenting as gastric mass: A rare case

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ABSTRACT

Wandering or ectopic spleen is a rare condition in which spleen is located outside its normal location. Wandering spleen is an incidental finding with a reported incidence of <0.2%, fewer than 500 cases reported worldwide in literature. It presents as a diagnostic challenge as it can easily mimic a neoplastic mass, an abscess, or an organized hematoma. Ultrasonography and contrast tomography are useful radiological methods in the diagnosis of wandering spleen. We report here autopsy case of a 51-year-old male with wandering spleen in gastric wall diagnosed on histopathology but presented as gastric mass mimicking malignancy. This case highlights the importance of radiology and histopathology in the diagnosis of an ectopic spleen. In the absence of spleen on radiology at a normal site and with a presence of intra-abdominal mass, the clinician should keep in mind ectopic spleen as a differential diagnosis.

Key words: *Ectopic, Histopathology, Rare, Spleen, Wandering*

The spleen is an intraperitoneal organ located in the left upper quadrant and has a smooth serosal surface. It is held in its normal position by gastrosplenic and splenorenal ligament [1]. There are numerous anatomical variations which affect normal spleen, among which one is wandering spleen.

Wandering or ectopic spleen is a rare condition in which spleen is located outside its normal location. Wandering spleen is an incidental finding with a reported incidence of <0.2%, fewer than 500 cases reported worldwide in the literature. It is most commonly found in children and women between 20 and 40 years of age. Wandering spleen is an elusive diagnosis and it has a variable clinical presentation. It can be asymptomatic or have varying degrees of abdominal pain. It presents as a diagnostic challenge as it can easily mimic a neoplastic mass, an abscess, or an organized hematoma [2,3]. We present the case of a 51-year-old male who had acute pain in the abdomen, died before admission to the hospital and at autopsy had an intra-abdominal mass which was diagnosed as intragastric ectopic spleen on histopathological examination.

CASE REPORT

A 51-year-old male resident of Maharashtra, India, complaining of pain in abdomen and restlessness after having food, was declared dead before admission to the hospital. No other relevant information regarding his past illness and family history was available. A complete medicolegal autopsy was performed.

Autopsy findings as per record were as follows: External examination revealed that the patient was well built and no injury marks were there. An internal examination of the organs found that the brain was congested, both the right and left lungs were congested, heart was enlarged in size, liver was nodular in appearance, kidney was congested, and stomach was congested with attached mass. A probable cause of death was kept pending for histopathological examination by medical officer. The above viscera were then sent for histopathological examination to autopsy section in the department of pathology at a hospital in Pune, Maharashtra.

The histopathological examination was as follows: Cerebrum, cerebellum, lungs, heart, and kidneys showed mild congestion. Liver on external and cut surface showed nodules of varying sizes ranging from 0.3 cm to 1 cm. The spleen was not received. Stomach received, was with attached mass measuring 21 cm×12 cm×7 cm. Serosa was congested; on cut opening stomach was dilated and showed congested mucosa with a mass in the wall of stomach measuring 15 cm×8 cm×4 cm. The mass was dark colored, soft to firm in consistency and is surrounded by fibrous and adipose tissue (Fig. 1). A provisional diagnosis of infarcted/hemorrhagic/neoplastic mass was made.

The microscopic examination revealed the following findings: Lung showed features of pneumonitis; coronaries were patent and myocardium was unremarkable in heart and the liver showed cirrhosis. Multiple sections studied through the stomach with attached mass show denuded gastric mucosa. Submucosa shows normal splenic tissue with thickened capsule, red and white pulp. Furthermore, areas of fibrosis noted. The muscle layer and serosa were unremarkable (Figs. 2 and 3). Based on these histomorphological findings, the final diagnosis of mass was given as "Intragastric Ectopic Spleen."

DISCUSSION

Of all solid organs, the spleen was least understood throughout the medical history, but at present, it is considered as an important

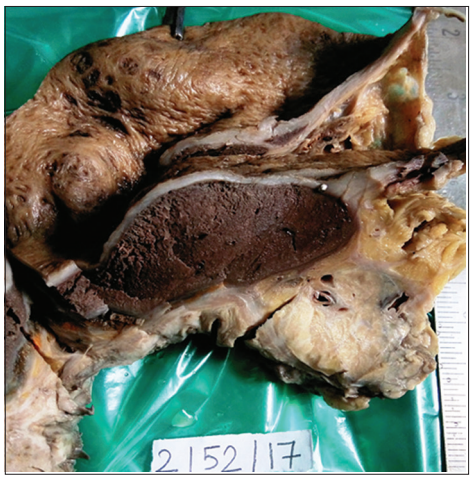

Figure 1: Gross photograph of cut open stomach showing normal spleen in the gastric wall

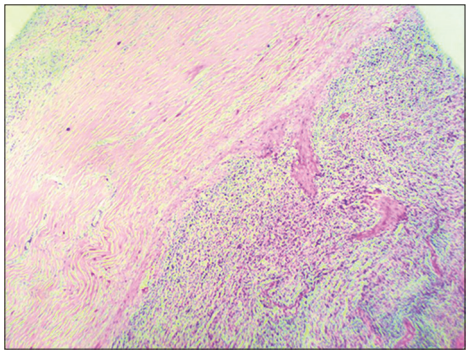

Figure 2: Microphotograph showing denuded gastric mucosa, thick capsule, and normal splenic tissue (H and E, ×4)

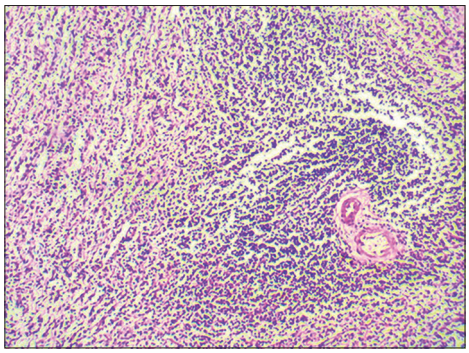

Figure 3: Microphotograph of splenic tissue showing white and red pulp (H and E, ×10)

reticuloendothelial organ. Wandering or ectopic spleen is a rare condition of this organ [4]. In this condition, the migration of spleen is seen from its usual anatomical position mainly to lower abdomen or pelvis. The laxity or maldevelopment of the supporting splenic ligaments is the main reason for the wandering spleen. It can occur anywhere, in the wall of stomach or bowel, greater omentum or mesentery, and in pelvis or scrotum. It is an incidental finding and very rare with a reported incidence of <0.2%, with fewer than 500 cases reported in the literature worldwide [5-7]. It is most commonly found in children and women between 20 and 40 years of age [1].

Wandering spleen has an elusive diagnosis and it has a variable clinical presentation. It can be either asymptomatic or have varying degrees of abdominal pain related to acute, chronic, or intermittent torsion of the vascular pedicle. The diagnosis of wandering spleen can be made by radiology investigations, of which ultrasonography and contrast tomography are the most useful methods [8]. The findings are an absence of the spleen in the left upper quadrant and mass located anywhere in the abdomen or pelvis. The vague and non-specific clinical presentation of wandering spleen often makes its diagnosis difficult on radiology.

There is a diagnostic pitfall in assessing anatomical variation of the spleen and a wandering spleen can mimic an intra-abdominal mass. In some patients, ectopic spleen might be the cause of death due to torsion or rupture of vascular pedicle causing hemoperitoneum or infarction of spleen, leading to sudden death. In our case at autopsy, the medical officers sent all organs along with intra-abdominal mass assuming it to be a malignancy. The diagnosis of wandering spleen was confirmed after a histopathological examination which was an incidental finding, and there was an absence of infarction in the spleen. To the best of our knowledge, very few cases of ectopic spleen arising from the gastric wall are reported in the literature.

Wandering spleen is treated surgically with either splenopexy or detorsion [7]. In our case, it was unfortunate that the patient succumbed before a diagnosis of wandering spleen could be made.

CONCLUSION

Ectopic spleen, most of the times, may be an incidental finding at autopsy; therefore, clinicians should keep in mind this condition as one of the differential diagnosis of an intra-abdominal mass in the absence spleen at the normal site. Furthermore, this case highlights the importance of radiology and histopathology in the diagnosis of wandering spleen.

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