RESEARCH PAPER | Medical Science | Volume : 6 | Issue : 2 | FEBRUARY 2016 | ISSN - 2249-555X

Accessory Spleen - Splenuncule Splenule

KEYWORDS: Accessory spleen, greater omentum, acute leukemia, cadaver

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ABSTRACT *Background: An accessory spleen is a congenital malformation, which is defined as ectopic splenic parenchyma.*

Method : by doing abdominal dissection of cadaver with dissecting instruments according to steps of cunningham's manual.

Result : Here, an extremely rare case accessory spleen, present in the greater omentum, . 1cm in diameter and round shaped. Well marginated,postero medial to the spleen and Anterolateral to upper pole of left kidney.. found in 9yrs female cadaver in our routine cadaveric dissection in the Osmania medical college, Hyderabad, Telangana. Since last three years we did dissection of 45 cadavers we found this abnormality in this 9yrs old female cadaveric body only. When we took past history of this girl , we found she had suffered with acute leukemia.

Conclusion: In conjunction with a review of the literature and a discussion of the salient radiological features, the present case highlights the requirement for accurate preoperative diagnosis of an accessory spleen in the greater omentum in order to avoid unnecessary surgical intervention.

INTRODUCTION:

The spleen is a large encapsulated mass of vascular and lymphoid tissue situated in the upper left quadrant of the abdominal cavity. Various developmental anomalies of the spleen have been observed, including complete agenesis, multiple spleens or polysplenia, isolated small additional accessory spleens, and persistent lobulation. . Accessory spleen may develop during the sixth week of embryogenesis following the deposition of spleen cells along the path from the midline, usually occurring on the left side. An Accessory spleen is commonly located near the spleen's hilum and in the pancreas tail [1], Accessory spleen may be formed during embryogenesis, developing from the left side of the dorsal mesogastrium as a result of imperfect fusion of separate splenic masses . Ectopic or accessory spleen is a congenital defect, defined as ectopic splenic parenchyma separated from the main body of the spleen. Although the majority are benign and do not usually require treatment, they may be mistaken for enlarged lymph nodes or neoplasms. The localization varies widely, but common sites of location of Accessary pleen are Hilum of spleen in 75% of cases or the pancreas tail (20%), as well as the greater omentum, along the greater curvature of the stomach, and the small and large intestine mesentery [1-3].

METHOD:

This study was carried over a span of three years on 45 human cadavers in the department of anatomy, osmania medical college, Hyderabad, telagana state , India. Dissection instruments were used for dissecting the abdomen according to the steps of the cunnigham's manual and observations are noted.

OBSERVATION AND RESULT:

Since last three years we did dissection of 45 cadavers we found this abnormality in this 9yrs old female cadaveric body only. When we took past history of this girl , we found she had suffered with acute leukemia. This Accessory spleen we found was persent in greater omentum. One cm in diameter and round shaped. Well marginated, rounded mass located posteromedial to spleen or anterolateral to upper pole of left kidney. CT/MRI and scintigraphy with Tc-99 m are helpful in marking the diagnosis of an Accessory spleen . Spleenosis means foci of splenic tissue undergo autotransplantation following physical trauma or splenectomy. In this case there is no past history of trauma or spleenectomy.

DISCUSSION AND CONCLUSION:

The spleen is a large encapsulated mass of vascular and lymphoid tissue situated in the upper left quadrant of the abdominal cavity. Various developmental anomalies of the spleen have been observed, including complete agenesis, multiple spleens or polysplenia, isolated small additional accessory spleens, and persistent lobulation. Accessory spleen may be formed during embryogenesis, developing from the left side of the dorsal mesogastrium as a result of imperfect fusion of separate splenic masses. The localization varies widely, but the most common locations are the splenic hilum (75%) or the pancreas tail (20%), as well as the greater omentum, along the greater curvature of the stomach, and the small and large intestine mesentery.

Ectopic splenic tissue can be either congenital (Accessory spleen or splenunculi) or acquired (splenosis). Splenosis is the auto-transplantation of splenic tissue during splenectomy or following trauma. The patient discussed herein had no history of trauma or splenectomy; therefore, this may have been a case of a previously undiagnosed Accessory spleen. Congenital Accessory spleen is seen in 10–30% of all autopsies. Unver Dogan et al. investigated 720 autop-

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sy cases, and Accessory spleen was found in 6.7% cases. Further, the common presentation is of a single Accessory spleen (85%), although two (14%), and rarely three or more (1%), can also be observed. The size of the Accessory spleen ranges from microscopic to 4 cm in diameter, as observed in the present case[4]. Accessory spleen presents 13 times more frequently in females than males, and the mean age is reported between 20 and 40 years[5]; the present case age is 9yrs, but we found at the time of cadaveric dissection.

A wandering spleen is a separate entity, resulting from incomplete development of the ligamentous splenic apparatus allowing the spleen to migrate within the abdomen. Case reports in the literature mostly present wandering Accessory spleen . Azar et al. [5]also reported on a pelvic wandering Accessory spleen in a 44-yrs-old female and emphasized on its differential diagnosis from adnexal masses. Vural et al. [6] reported on a wandering Accessory spleen attached to the greater omentum resected from a 26-year old female. Perin et al. [7]reported on a wandering Accessory spleen in the pelvis treated laparoscopically.

An Accessory spleen is an incidental finding of no clinical significance in most patients. Accessory spleen are generally determined during radiological investigations or during open or laparoscopic surgeries[8]. They are usually asymptomatic and have rarely been reported to present clinically as an abdominal mass related to complications such as torsion, spontaneous rupture, hemorrhage, or cyst formation. Torsion and ischemia of Accessory spleen can lead to acute abdomen as seen in the main spleen. Cowles and Lazar [9] reported on a torsioned wandering Accessory spleen in the pelvis.

An accessory spleen is a common congenital defect that affects 10–30% of the population . They are generally small (15.0–20.0 mm) and are primarily located in the splenic hilum (75%) or in the tail of the pancreas (20%) . Occasionally they may be located in the splenorenal ligament, greater omentum[10], the presence of an accessory spleen in the right retroperitoneal space is extremely rare [11]. When a retroperitoneal neoplasm is detected, surgeons should be aware of the possibility of an accessory spleen in this location, in order to make precise preoperative diagnoses. Other locations are mesentery, presacral area, adnexal region, scrotum, pelvic cavity, liver or the thorax [12-15]. Although an accessory spleen usually presents as an isolated asymptomatic abnormality, it may have clinical significance as it may be mistaken for an enlarged lymph node or a neoplasm. Therefore, the accurate preoperative diagnosis of an accessory spleen is important in order to avoid unnecessary surgery. CT/MRI and scintigraphy with Tc-99 m are helpful in marking the diagnosis of an accessory spleen .

Therefore accurate preoperative diagnosis is important in order to avoid unnecessary surgical intervention . differential diagnosis for this accessory spleen are Neoplastic growth of pancreas, Acute abdomen,retro peritoneal tumor, Lymphadenopathy. Accessory spleen rarely undergoes tortion [16-18].

FUNDING: none
Conflict of intrest: none declared.
Ethical approval : not required

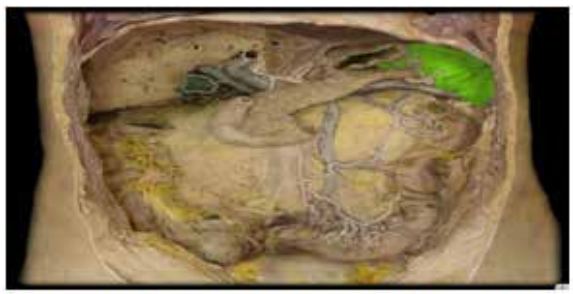

fig-1: showing normal location of spleen in the left hypochondrium

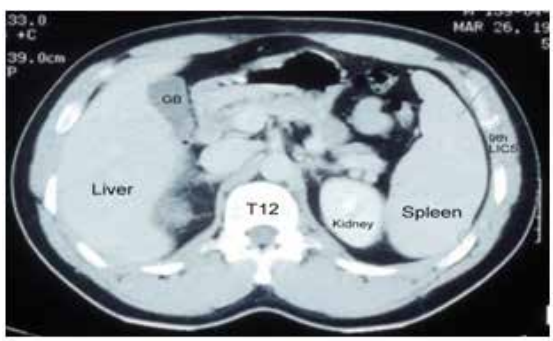

fig-2: CT-scan showing location of normal spleen

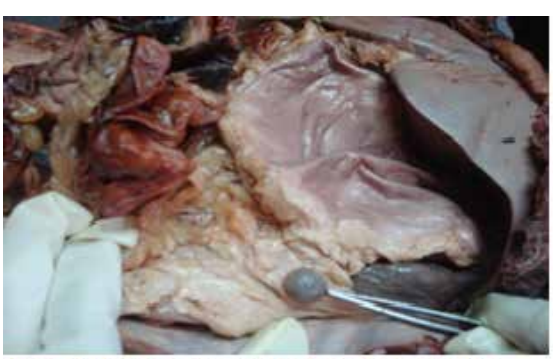

fig-3: showing Accessory spleen in the greater omentum

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