

Study of Accessory Spleen

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Abstract: The Accessory spleen is a small nodule of splenic tissue found apart from the body of spleen. It is also called super numerary spleen, splenicule or spleniculum. They are found approximately in 10 % of population and are typically around 1 cm in diameter. In the present study 55 spleens from embalmed cadavers were collected during routine dissection in the department of Anatomy, Andhra medical college for a period of 8 years. They were preserved in 10% formalin solution. In the present study of accessory spleens, it was observed that out of 55 spleens only 7 spleens are showing accessory spleens.

Keywords: Spleen, Accessory spleen, Hilum of spleen.

I. INTRODUCTION

Accessory spleen may be formed /deposited during embryonic development when some of the cells from the developing spleen are deposited along the path; the spleen develops in the dorsal mesogastrium. These accessory spleens are formed by the developmental anomalies or trauma. Failure of individual clumps of mesenchymal cells to fuse properly, results in formation of accessory spleens, which are found in 30 % of autopsies.

The most common locations of accessory spleen are hilum of spleen adjacent to the tail of pancreas or they may be found any where along the splenic vessels, in the gastrosplenic ligaments, splenorenal ligament, the walls of the stomach, intestine or greater omentum, gonads and their path of descent. Splenogonadal fusion can result in one or more accessory spleens along the path from abdomen into pelvis because the developing spleen forms near gonadal ridge. Gonads may pick up some splenic tissue from developing spleen.

II. CASE REPORT

Out of 55 spleens studied 7 spleens are showing accessory spleens. Owing to 12.72%.

S.no	Spleen	Accessory spleen
1	Normal	Absent
2	Normal	Absent
3	Normal	Absent
4	Normal	Absent
5	Normal	Absent
6	Normal	Absent
7	Normal	Absent
8	Not normal	Present
9	Normal	Absent
10	Normal	Absent
11	Normal	Absent
12	Normal	Absent
13	Normal	Absent
14	Normal	Absent
15	Normal	Absent
16	Not normal	Present

17	Normal	Absent
18	Normal	Absent
19	Not normal	Present
20	Normal	Absent
21	Normal	Absent
22	Normal	Absent
23	Not normal	Present
24	Normal	Absent
25	Normal	Absent
26	Normal	Absent
27	Normal	Absent
28	Normal	Absent
29	Normal	Absent
30	Normal	Absent
31	Not normal	Present
32	Normal	Absent
33	Normal	Absent
34	Normal	Absent
35	Normal	Absent
36	Normal	Absent
37	Not normal	Present
38	Normal	Absent
39	Normal	Absent
40	Normal	Absent
41	Normal	Absent
42	Normal	Absent
43	Normal	Absent
44	Not normal	Present
45	Normal	Absent
46	Normal	Absent
47	Normal	Absent
48	Normal	Absent
49	Normal	Absent
50	Normal	Absent
51	Normal	Absent
52	Normal	Absent
53	Normal	Absent
54	Normal	Absent
55	Normal	Absent

Accessory spleens are seen in 7 spleens at various positions.

S.no	Accessory spleens Location
1	In the gastro splenic ligament
2	In the superior end of hilum of the spleen
3	In superior end of hilum of spleen
4	In the upper part of renal surface
5	In the gastric surface
6	In the lower end of hilum of spleen
7	In the middle of the hilum

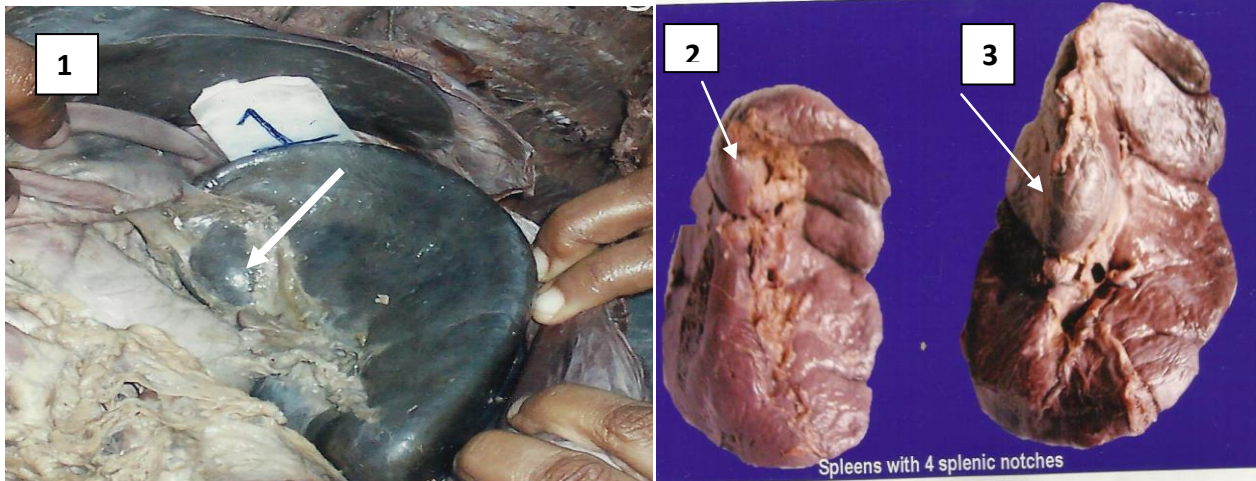


Fig 1: Accessory spleen in the gastrosplenic ligament measuring 2 x 1.5 cm **Fig 2:** One accessory spleen close to the superior end of the hilum, measuring 1.5x 1.3 cm , which is having its own capsule and its arterial supply from superior Polar artery. **Fig 3:** One accessory spleen close to the superior end of the hilum of the spleen measuring 2.8x 1.8 cm having its own capsule and its arterial supply.

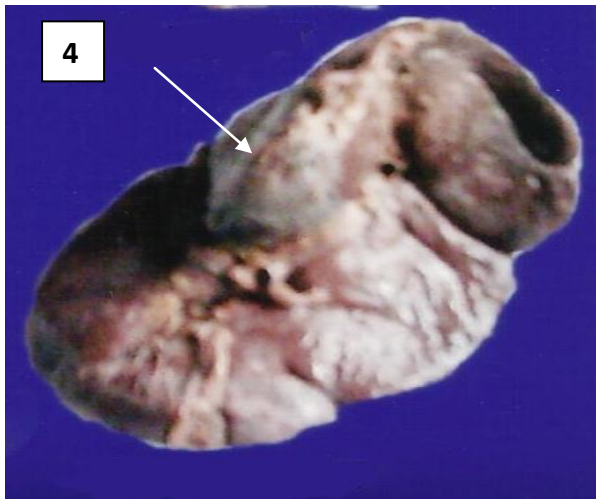


Figure 4: showing accessory spleen in the upper part of renal surface measuring 2.7x1.9 cm



Figure 5: showing accessory spleen in the gastric surface measuring 1.3 x 1.1 cm



Figure 6: Accessory spleen at the lower end of the hilum of spleen measuring 1.75 x 1.5 cm



Figure 7: Accessory spleen close to the middle of the hilum of the spleen measuring 1x1cm.



Figure 8: Microscopic structure of Accessory spleen is similar to that of an adult spleen.

III. DISCUSSION

The Accessory spleen is a small nodule of splenic tissue found apart from the body of spleen. It is also called super numerary spleen, splenicule or spleniculum. They are found approximately in 10 % of population. In our study it is about 12.72%.The diameter is about 1-2 cms by many authors. Our study revealed the diameter ranging from 1.5-2 cms. They are formed by the developmental anomalies or trauma. They are medically significant in that, they may result in continuation of symptoms after therapeutic splenectomy. An accessory spleen may be formed during embryonic development, when some of the cells from the developing spleens are deposited along the path from the midline. Accessory spleens resembling lymph nodes are found in 7 specimens, all are accessory spleens. Accessory spleens are having same histological structure as that of spleen. Each accessory spleen is having its own capsule and arterial blood supply.

Splenosis is a condition where splenic tissue undergoes auto transplantation, most often following trauma or splenectomy. If splenectomy is performed for conditions in which blood cells are sequestered in the accessory spleen, failure to remove the accessory spleen may result in the failure of the condition to resolve. And the patient continues to have the same symptoms.

During medical imaging, accessory spleens may be confused for enlarged lymph nodes or neoplastic growth in the tail of pancreas, gastrointestinal tract, adrenal glands or gonads.

Splenogonadal fusion is important to detect because failure to recognise it can lead to an unnecessary orchidectomy. Any accessory splenic tissue is capable of hypertrophy. When splenectomy is performed for hypersplenism / haematological disorder hypertrophy of accessory spleen may cause recurrence of disease and symptoms.

IV. CONCLUSION

Most of the accessory spleens are asymptomatic and are discovered incidentally by ultrasound abdomen, CT scan or during laparotomy. In few cases accessory spleens become symptomatic causing abdominal pain due to torsion and infarction. Accessory spleens need to be distinguished from splenosis which is an acquired condition associated with splenic trauma or surgery. The study of Accessory spleens in the body shows an extensive medical and surgical importance owing to lobulated development of the spleen. It is observed that splenic tissue is deposited or developed at abnormal positions. It has been observed that pathological changes that have been occurred in the major spleen have also been identified in accessory spleen. This makes it mandatory for a surgeon who plans for splenectomy should have thorough knowledge of accessory spleens and should search for them before closing the abdomen.

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