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Case Report

Surgery Section

Retroperitoneal Accessory Spleen Presented As Metastatic Suprarenal Tumour- A Diagnostic Dilemma

REKHA PORWAL[1], AMIT SINGH[2], PRITESH JAIN[3]

ABSTRACT

Accessory spleen may be formed during defective embryonic development. The retroperitoneal accessory spleen is a rare clinical entity and metastasis of renal carcinoma into this entity is extremely rare. We are presenting a case of a 50-year-old male patient who was admitted with complaints of left lower abdominal lump and pain. The computed tomography revealed a 7×4 cm mass at upper pole of left kidney. To rule out malignancy, we planned for surgical exploration. Suprarenal mass was densely adherent to left kidney so left nephoureterectomy with suprarenal mass was performed. On histopathology examination left kidney showed transitional cell carcinoma with metastasis into suprarenal mass that was found to be an accessory spleen. Diagnosis was made retrospectively by histopathological observation. So this case highlights the difficulty in differentiation of these masses from malignant adrenal tumours.

Keywords: Adrenal mass, Accessory spleen, Retroperitoneal tumours, Splenic metastasis

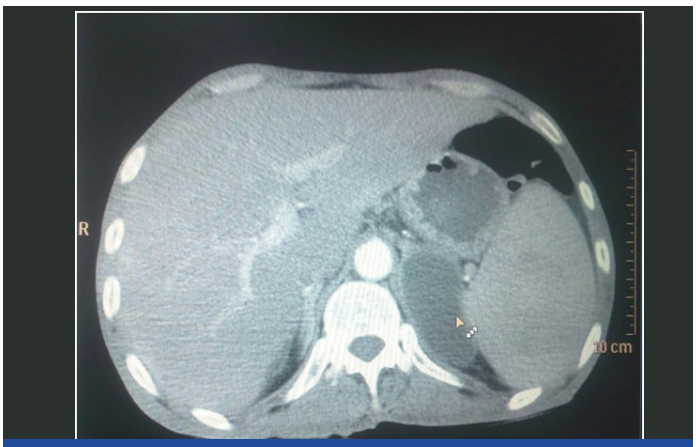
CASE REPORT

A 50-year-old male patient presented with left lower quadrant pain since the past one year. Pain was chouronic, dull aching in nature and non–radiating. It was mild to moderate in severity, and there were no aggravating or relieving factors. The patient did not give any history of hypertension, diabetes, jaundice, fever, haematuria, vomiting, or abdominal distension. General physical examination revealed a healthy appearing male. The blood pressure was 100/80 mm of Hg, pulse rate 88/min and respiratory rate 22/min. Bowel and bladder habits were normal. On examination, a lump, 3×5 cm in size and firm in consistency, and well-defined margins present in left lumbar region. Lump was tender and balotable, but there was no guarding, rigidity or rebound tenderness in rest of the abdomen. All laboratory investigations were within the normal limits, except mild anaemia and alkaline phosphatase, which are marginally increased. Chest and abdomen skiagram were within normal limit. CECT was planned which showed few enhancing lesions in left kidney with a 7-cm × 4-cm mass at the upper pole of the left kidney [Table/Fig-1]. Malignancy of adrenal gland was suspected. Surgery was planned and pre operative serum ACTH level and 24 hour VMA level were within normal limits. Kidney was approached thorough standard left renal incision with intraperitoneal route.

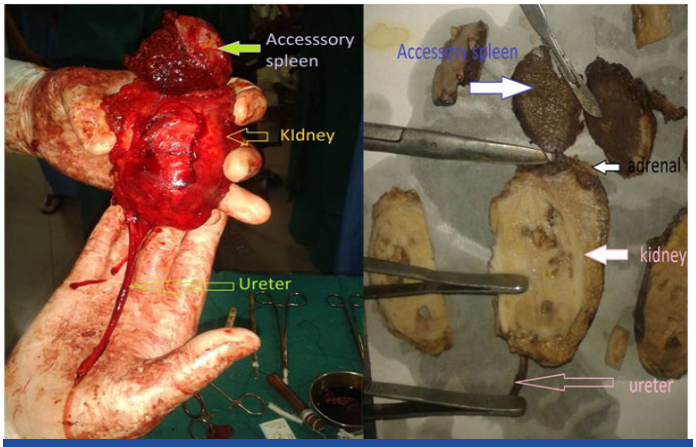
On intraperitoneal examination liver and spleen were found normal. There were dense adhesions present at perirenal tissue. A purple, smooth-surface 5×6 cm mass was found at left suprarenal area in just above the kidney. Suprarenal mass was densely adherent to left kidney so Enblock left nephoureterectomy with suprarenal mass was performed [Table/Fig-2].Postoperative antibiotics injections of ceftriaxone and metronidazole, were given for 5 days. The patient made an uneventful recovery and was discharged on the 8th post-operative day. On histopathological examination left kidney showed transitional cell carcinoma with metastasis into suprarenal mass that was found to be an accessory spleen. The accessory spleen showed multiple metastases from transitional cell carcinoma of kidney [Table/Fig-3].

DISCUSSION

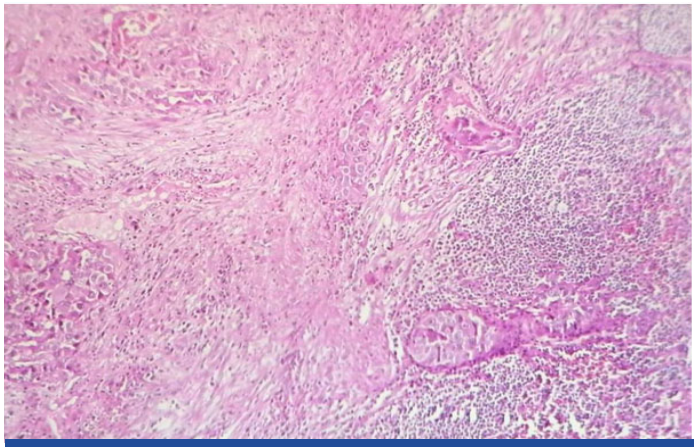
An accessory spleen is defined as ectopic splenic tissue that develops due to failure of fusion of cells during embryonic development as they migrate from the midline to the left upper quadrant [1]. The most common locations for accessory spleens are the hilum of the spleen and adjacent to the tail of the pancreas. They may occur anywhere along this path in the abdomen including gastrosplenic ligament, splenorenal ligament, greater omentum,



[Table/Fig-1]: Axial image of CECT abdomen showing 7 cm× 4 cm central hypo echoic and peripheral enhancing mass at suprarenal position



[Table/Fig-2]: Gross and cut specimen of nephoureterectomy with excised accessory spleen



[Table/Fig-3]: Photomicrograph showing splenic sinusoids and lymphatic follicles invaded by metastatic deposits of TCC (H&E High Power)

stomach, mesentery, adrenals and gonads. Accessory spleen may resemble many tumours, such as pancreatic tumour, adnexal tumour, abdominal tumour, retroperitoneal tumour, adrenal tumour or testicular tumour according to its location. Accessory spleens are found in approximately 10-30 percent of the population and are typically around 1 centimetre in diameter but size up to 20 centimetres are also reported [1]. To the best of our knowledge less than thirty cases of accessory spleen in retroperitoneal space are published in literature till 2013 [2]. Virtually all cases were situated in left retroperitoneal space except two cases on right side, which were reported by A. Arra et al., and Kim et al., [1,3]. However we didn't get incidence of metastasis in accessory spleen in retroperitoneal space after a thorough search in various indexing agencies. Diagnosis of retroperitoneal mass can be proceeding by imaging like Ultrasonography, CT, MRI and A dual phase CT/MRI demonstrates not only the arterial and venous drainage but also the characteristic isosplenic enhancement pattern [4]. Retroperitoneal accessory spleen difficult to differentiate with more commonly found retroperitoneal masses like lymphoma, adrenal tumours, schwannoma and teratoma on imaging [2,4]. If the index of suspicion is high Radionuclide imaging using heat-damaged Tc99m-labelled red blood cells and Tc99m sulphur colloid scan has been proposed to be a modality of choice for the identification of ectopic splenic tissue and shows diffuse uptake of the tracer by the accessory splenic tissue [2,4,5]. Treatment of an accessory spleen is controversial. It is usually asymptomatic. When an accessory spleen present without any symptoms, treatment is not necessary. However, if accessory spleen has torsion of the pedicle, rupture and malignant transformation requires surgical removal [6]. Definitive diagnosis can usually be made by the pathological examination of surgical specimens similar like our case [2,3].

CONCLUSION

This case highlights that the possibility of an accessory spleen should always be considered in the differential diagnosis when left adrenal tumour is suspected in CT or MRI. Radionuclide imaging gives valuable clues about diagnosis if strong suspicion present and obviate unnecessary surgical exploration.

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PARTICULARS OF CONTRIBUTORS:
1. Professor and Head, Department of General Surgery, Jawahar Lal Nehru Medical College, Ajmer, Rajasthan, India.
2. Assistant Professor, Department of General Surgery, Jawahar Lal Nehru Medical College, Ajmer, Rajasthan, India.
3. Senior Resident, Department of General Surgery, Jawahar Lal Nehru Medical College, Ajmer, Rajasthan, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:
Dr. Amit Singh,
Assistant Professor, Department of General Surgery, Jawahar Lal Nehru Medical College,
Ajmer, Rajasthan-305001, India.
E-mail : dr.amit5280@gmail.com

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