CASE REPORT

ACINAR CELL CARCINOMA OF PANCREAS IN A CHILD: A RADIOLOGICAL PERSPECTIVE

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Acinar cell carcinoma is a rare tumour arising from pancreatic acinar cells. Typical radiological patterns associated with it may suggest the unusual diagnosis even before final confirmation by histopathology. We present a case of an 8 year old boy who presented to clinic with symptoms of abdominal pain without associated jaundice or vomiting. Imaging revealed an atypical mass arising from head of the pancreas. Histopathology confirmed the diagnosis of acinar cell carcinoma. An idea about atypical and rare pancreatic masses is necessary to help direct the diagnosis and guide the pathologist for suspecting atypical pathology.

Keywords: Acinar cell carcinoma, pancreas, radiology, child
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INTRODUCTION

Acinar cell carcinoma is an atypical and rare exocrine pancreatic mass which usually secretes pancreatic enzymes. Common symptoms upon presentation are usually nonspecific including abdominal pain, diarrhoea, nausea, and vomiting and weight loss.[1]

Contrast enhanced CT is the modality of choice and usually reveals a hypo-attenuating well circumscribed lesion with enhancing capsule. Distinguishing features for this lesion include relative lack of biliary/pancreatic ductal dilatation along with lack of calcification, necrosis & internal hemorrhage.[2]

We present a case of a child with atypical pancreatic mass, imaging features suggestive of acinar cell carcinoma and confirmatory diagnosis on histopathology.

CASE PRESENTATION

An 8 year old boy presented to outpatient clinic with complains of vague central abdominal pain and weight loss for past 6 months. He was vitally stable with a height was 126 cm and weight of 19 kg. General physical and systemic examinations were essentially unremarkable. Lab workup revealed alpha-fetoprotein of 2238 IU/ml. He had already undergone biopsy of lesion prior to presenting at our institution which revealed diagnosis of acinar cell carcinoma.

Contrast enhanced CT was performed for further evaluation which revealed, lobulated hypo-attenuating soft tissue lesion measuring 7.1×5.9×4.8 cm, arising from head of pancreas. Cleavage plane was present between this lesion and surrounding structures (Figure-1). No internal calcification or definite area of necrosis was identified. Encasement of major abdominal vessels including main portal vein and superior mesenteric artery along with compression of inferior vena cava, right renal artery & vein were seen. All these vessels, however, had normal contrast opacification (Figure-2). Distal portion of common bile duct was encased by this lesion however proximal part was normal in calibre measuring 0.6 cm. Mild intrahepatic biliary dilatation was present. (Figure-3). There was no evidence of significant abdominal lymphadenopathy or metastasis to liver, lungs or bones on this examination.

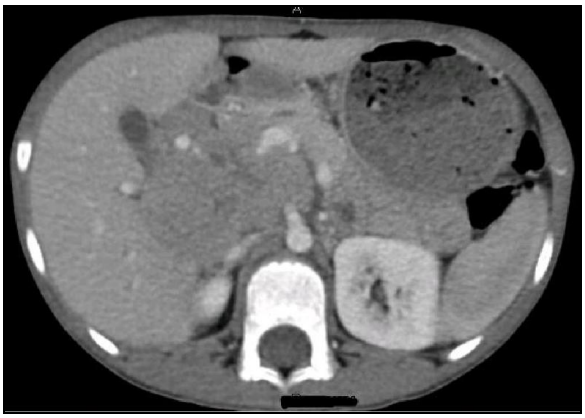

Figure-1: Lobulated mass with good cleavage plane. Note encasement of major vessels with normal contrast opacification

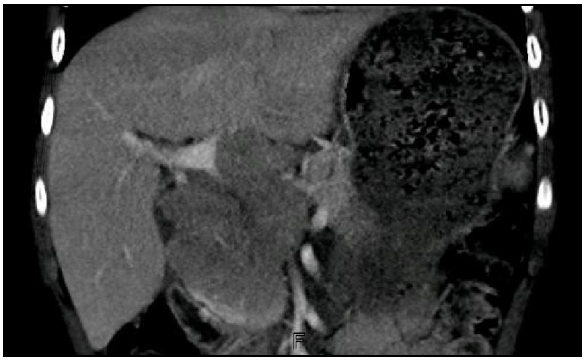

Figure-2: Mild intrahepatic and no extrahepatic biliary dilatation despite large mass. Note normal contrast filling in portal vein & compression of duodenum.

DISCUSSION

Acinar cell carcinoma is a rare pancreatic neoplasm with characteristic radiological features. It has been rarely reported in paediatric population and may occasionally lead to paraneoplastic syndromes.[1] Suggestive radiological findings are; well circumscribed lesion with intact, enhancing capsule, lack of calcification, necrosis and internal haemorrhage. Another feature prompting radiologist to this pathology as described by Raman *et al*,[2] include relative lack of biliary and pancreatic ductal dilatation compared to size of lesion[2,3].

Almost all of these findings were present in our case. All vessels encased by this lesion were also showing normal contrast opacification, this was in keeping with published literature of radiological findings in these cases.[3] Acinar cell carcinoma usually carries better prognosis than adenocarcinoma.[4,5] Approximately 50% of acinar cell lesion already have metastasized at time of presentation with high rate of micro metastasis, requiring adjuvant therapy.[1]

CONCLUSION

Sound knowledge among radiologists regarding atypical pancreatic lesions can help in rapid diagnosis and treatment.

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