

Case Report

CAN ISOLATED PELVIC TUBERCULAR MASS MIMIC MALIGNANCY? – A HISTOPATHOLOGICAL SURPRISE

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ABSTRACT

Abdominal tuberculosis can have a variety of clinical presentation and might be difficult to diagnose in some cases. Rarely a solitary tubercular mass in the abdomen may mimic a malignant mass both clinically, on investigations and even during surgery. We report a case of highly vascular solitary pelvic mass encasing the right ureter which was diagnosed provisionally as a malignant mass, based on clinical and radiological investigations (CT angiography) until the postoperative histopathological evaluation confirmed it to be a tubercular lesion.

Keywords: Abdominal Tuberculosis, Malignant Pelvic Mass, Highly Vascular, Solitary Tubercular Mass

INTRODUCTION

Abdominal tuberculosis can involve the intestine, lymph nodes, peritoneum & solid organs. Cross-sectional imaging with multidetector computed tomography (CT), and magnetic resonance imaging (MRI) plays an important role in the diagnosis. Rarely a highly vascular solid abdominal mass is considered as a tubercular mass based on Contrast Enhanced CT (CECT). Hence tuberculosis should be kept as a differential diagnosis when evaluating a highly vascular isolated solid abdominal mass for malignancy.

CASES

A 48yrs old female presented to surgical OPD with complaints of lower abdomen heaviness and oligomenorrhea for the past two years. Patient had undergone a laparotomy 6 months back in a private hospital for an abdominal mass. A highly vascular fixed unresectable pelvic mass was found on exploration. No biopsy was taken and the laparotomy was closed. There was no history suggestive of tuberculosis in the patient or nearby relatives. The general physical examination was unremarkable. Abdominal examination revealed a fixed, ill defined lump in the hypogastric and right iliac region. Lower margin of the lump was not palpable. The lump could be appreciated in the per rectal examination in the pouch of Douglas and was fixed.

CT angiography and CECT pelvis suggested a large (12x7.5cm) well defined, solid homogenous mass showing intense enhancement on early arterial phase images with persistence of contrast in venous phase (Figure 1A & B). Multiple arterial feeders were seen arising from right internal iliac artery to supply the mass (Figure 2A & B). Right ovary & right lower ureter could not be identified separately from the mass with upstream dilatation of ipsilateral ureter. No lymphadenopathy or free fluid was noted.

Preoperative embolization of the feeder vessels was done using PVA particles, coil & gel foam. Preoperative right ureteric stenting was attempted but the stent could not be negotiated successfully. Patient underwent second exploratory laparotomy. A homogenous solid mass of size 7x8 cm was present in the pelvis on the right side with multiple feeders from internal iliac. Mass was encasing and compressing the right ureter with proximal dilatation of right ureter. Planes of dissection were maintained from all other surrounding structures. Uterus and bilateral adnexa were normal. Resection of the mass along with the lower ureteric segment and right ureteric reimplantation was done.

Histopathology reported an irregular globular mass of 10x8x7 cm with foci of granulomatous inflammation having caseous necrosis. Granulomas were comprised of epithelioid cells, admixed with

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multinucleated giant cells, lymphocytes and plasma cells suggesting tuberculosis. Patient was started on antitubercular treatment with 4 drugs in the intensive phase based on the body weight. Patient was discharged on 8th postoperative day and is all right on regular follow up.

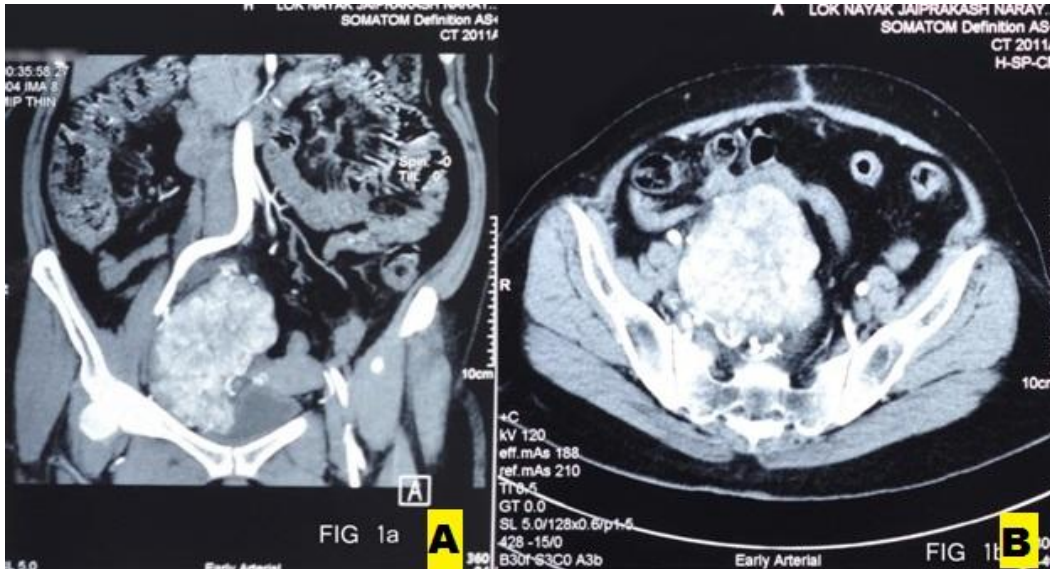


Figure 1 A & B: CECT Image of a Large (12x7.5cm) Well Defined, Solid Homogenous Mass Showing Intense Enhancement on Early Arterial Phase Images with Persistence of Contrast in Venous Phase



Figure 2A & B: Multiple Arterial Feeders were Seen Arising from Right Internal Iliac Artery to Supply the Mass

DISCUSSION

Abdominal tuberculosis commonly involves intestine with ulcerative or hyperplastic growth, lymph nodes to form cold abscess, peritoneum in the form of ascitis, encysted type, fibrous or cocoon formation & solid organs forming a cold abscess or miliary tubercles. An isolated solid tubercular mass has not been reported earlier. There were many evidences in our patient which were in favour of a malignant nature of the mass.

1. Previous laparotomy of our patient had documented a highly vascular fixed unresectable pelvic mass, suggestive of malignancy.

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2. CECT described the mass as a homogenous solid mass encasing the right ureter with intense enhancement on arterial phase

3. Multiple arterial feeders from internal iliac artery on angiography.

Few cases of solid organ tuberculosis like pancreatic (Singh *et al.*, 2009; Yang *et al.*, 2014) renal tuberculosis (Kumar *et al.*, 2014) resembling malignancy on CECT and leading to whipples surgery and nephrectomy have been reported. But tuberculosis in a form of an isolated vascular solid mass in the abdomen or pelvis not arising from a definite solid organ has not been reported in the past. Ureteric stricture and fibrosis have been reported in patients with tuberculosis (Muttarak *et al.*, 2005), but never such a large mass has been reported. Therefore, this came as a histological surprise. Hence, in the tuberculosis endemic areas, tubercular mass can be kept as a differential diagnosis even in patients with likely diagnosis of a malignant mass on CECT. Histopathology or cytology is the most definitive investigation to diagnose tuberculosis. In this case a previous biopsy might have avoided the second surgery. Early diagnosis of tuberculosis may prevent unnecessary surgeries & morbidity to the patients.

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