

Case Report: A Rare Co-Incidence Chronic Appendicitis with Koch' Abdomen

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ABSTRACT

Appendicitis is a common disease while abdominal tuberculosis is rare. Diagnosing appendicitis is comparatively easier while for abdominal tuberculosis till date no definitive diagnostic tool is available. All Clinical, hematological and radiological only support the diagnosis but not confirm the diagnosis. In this study both appendicitis and abdominal tuberculosis were present simultaneously which is very rare incidence in medical literature.

INTRODUCTION

Chronic appendicitis is a very common condition while as abdominal tuberculosis is a very rare condition. Usual things between them are similar initial presentation like as pain in right ilio-lumbar region more or less around umbilicus with fever nausea and vomiting, loss of appetite. Diagnosing appendicitis is very easy while abdominal tuberculosis is remains a challenging condition even with experienced clinicians. Till date there is no biochemical and radiological test can prove abdominal tuberculosis. Tuberculosis is one of the top 10 causes of death, globally. In 2017, ten million people developed tuberculosis, with an estimated 1.3 million deaths [1]. Extra pulmonary tuberculosis occurs in about 20% of all tuberculosis. Abdominal tuberculosis constitutes about 10% of extra-pulmonary tuberculosis [2]. There are some misconceptions like as abdominal tuberculosis is rare and disease of poor family and is always associated with active pulmonary tuberculosis [3]. A high index of clinical suspicion is needed for this diagnosis [4].] Most of the cases manage conservatively; Surgery is performed only about 15% of the cases due to obstruction, abscess formation, and perforation [5]. Radiological finding of abdominal TB is non-specific. Ultrasonography and computed tomography may show generalized or localized ascites, thickened bowel loop, enlarged mesenteric lymph nodes. CT scan is the modality of choice in evaluating the extent and type of abdominal tuberculosis [6]. Nevertheless, radiological findings are non-specific [7].

CASE STUDY

24 years old Patient was admitted to our side as a case of pain in right ilio-lumbar region. Pain was recurrent and mild intensity for 6 months. Fever was also present on and off for 6 month. Altered bowel habit was present. Patient was admitted three times within these periods. initial ultrasound findings was inflamed appendix but sometimes pain appeared in whole abdomen due to which diagnosis was unclear. CT scan was advised and findings were suggestive of ileal thickening [Koch's abdomen]. patient was also hepatitis B positive. Still dilemma was there either this is a case of chronic appendicitis or Koch's abdomen. Evaluation was started for Koch's abdomen. hematological investigation with montoux test, serum ESR, serum adenosine deaminase were also sent, only serum adenosine deaminase was increased, and add a

supportive diagnostic tool towards Koch's abdomen. But patient again develop severe pain at same site and Mc Burney's tenderness was present now this time. Next day preoperative assessment was done and open appendectomy was planned. During open appendectomy inflamed appendix was present along with some multiple white spot on ileum part suggestive of Koch' abdomen, intraoperative video and photographs were recorded for future correspondence.



Figure 1: Arrow indicates white spot (Dot's like as Tuberculer lesion) on distal part of ileum



Figure 2: inflamed appendix

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REPORT

Name	: MOHD. IRFAN	Age/Gender	: 24 Yrs/MALE
Reg No	: 0001CD010001	Barcode No	: 50547281
Sample Coll Dt	: 09/04/2022 12:00 AM	Reg Date	: 10/04/2022 03:4
Sample Rcv Dt	: 10/04/2022 03:42 AM	Reported Date	: 10/04/2022 05:5
Report Status	: Final	Referred By	: SELF

Tests	Results	Biological Reference Range
BIOCHEMISTRY		
ADENOSINE DEAMINASE, SERUM	46.3	High NORMAL: <43 SUSPECT FOR MTB: 43 - 62 STRONG SUSPECT FOR MTB: >62
Specimen: SERUM		
Comments: Adenosine deaminase (ADA) enzyme is seen in high concentrations in T lymphocytes and increased in tubercular infections. At a level of 50 U/L, the assay is highly sensitive, specific and negative predictive values for Tuberculosis. However in patients with lympho infusions from non - tubercular causes, ADA levels < 40 U/L are seen in approximately 97		
Increased Serum Levels - Viral hepatitis, Infectious mononucleosis, Typhoid fever, Cirrhosis and certain malignant tumors, Tuberculosis.		
Increased Fluid Levels - Tuberculosis, Bacterial infections, Lymphoproliferative disorders, Rheumatologic diseases.		
Decreased Levels - Type II Diabetes mellitus & Biliary tract diseases.		

****End Of Report****

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Dr. D.N. Gangwar
MBBS, MD(RADIO-DIAGNOSIS)

Date: 10.05.2022	Srl No.:	Reporting Date: 10.05.2022
Name: Mrs. Mohd Irfan		Age/Sex: 24 YRS/ M
Ref By: Dr. Naseem		

ULTRA SOUND SCAN OF WHOLE ABDOMEN

Liver is of normal size. Echo-texture is normal. No focal space occupying lesion is seen within liver parenchyma. Intra hepatic biliary channels are not dilated. PV and hepatic veins are not dilated.

Gall bladder is of normal size. Wall is not thickened. No calculus or mass lesion is seen in gall bladder.

Common bile duct is not dilated. No calculus is seen in visualised CBD.

Pancreas is of normal size and contour. Echo-pattern is normal. No focal lesion is seen within pancreas.

Spleen is of normal size and shape. Echotexture is normal. No focal lesion is seen.

Kidneys are normally sited and are of normal size and shape. Cortico-medullary echoes are normal. No focal lesion is seen.
RK 104x52 mm & LK 110x56 mm
Collecting system does not show any dilatation or calculus either side.

B/L ureters are not dilated.

Urinary bladder is well distended. No wall thickening seen, No calculus or mass is seen. Post void residual urine is nil.

Prostate is of normal size and echo-texture normal.
No enlarged nodes are visualised. No retro-peritoneal lesion is identified.
Great vessels appear normal.
B/L pleural space are clear.

Appendix is thickened (8-13 mm) & inflamed, surrounded by omentum.
Minimal fluid collection seen in right iliac fossa at the time of scanning.

ADV- HEMOGRAM & CECT LOWER ABDOMEN.
Please correlate clinically.

Dr. D.N. Gangwar
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Consultant Radiologist

pression is a professional opinion. All modern machines/Procedures have their limitations. If this examination may be repeated or re-evaluated by other investigations. **Not valid for medico**
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AMBIKA
DIAGNOSTIC CENTER & PATH LAB

Near Dhela Pul, Moradabad Road, Kashipur
(U.S. nagar) Uttarakhand

Patient Name: IRFAN 24 Y M Patient ID: 00012 Age | Gender: 000Y
n Date: APR 08 2022 Referring Doctor: NOVA CARE HOSPITAL Report Date: APR 08 2022

PLAIN & CONTRAST ENHANCED MDCT OF ABDOMEN AND PELVIS

A helical CT was acquired from the lung bases through the symphysis pubis on 16-slice scanner. Non-ionic contrast was administered intravenously without complication. Images were reviewed in lung window, bone window, and abdominal window.

Imaging Features:-

LIVER: It is normal in size, shape, outline and attenuation. No focal pathology is seen. Hepatic and portal venous system is well-visualized shows normal appearance. No IHBR dilatation is noted in both lobes of liver. Common bile duct is normal.

GALL BLADDER: Well-distended GB is seen with normal lumen. Walls are smooth in appearance. No obvious enhancing mass lesion is noted. (CT is not a modality of choice for gall bladder and biliary calculi, USG is advised for the same).

PANCREAS: Is normal in bulk with maintained lobulations. Parenchymal attenuation is homogenous and normal in appearance. Pancreatic duct is normal.

ADRENAL: - Both adrenal glands are normal. No supra renal mass is noted.

RIGHT KIDNEY: - Normal in size, shape and outline. There is homogenous uniform contrast enhancement with maintained corticomedullary differentiation on corticomedullary phase. The renal outline, perinephric fat planes are well preserved. PCS, renal pelvis and ureters are normal. Right ureter is normal in caliber and appearance. No e/o any hydronephrosis or calculus.

LEFT KIDNEY: - Normal in size, shape and outline. There is homogenous uniform contrast enhancement with maintained corticomedullary differentiation on corticomedullary phase. The renal outline, perinephric fat planes are well preserved. PCS, renal pelvis and ureters are normal. Left ureter is normal in caliber and appearance. No e/o any hydronephrosis or calculus.

On delayed images bilateral kidneys are normal excreting with bilateral normal ureters.

SPLEEN: Is normal in size and shows homogenous contrast enhancement. No focal pathology is seen. No significant abdominal (mesenteric & retroperitoneal) lymphadenopathy is noted.

There is mild thickening of distal ileal loops in right iliac fossa associated with fat stranding in the surrounding mesentery. Stomach is partially distended & unremarkable. Rest of small & large bowel loops are normal in caliber with no obvious wall thickening or luminal compromise. No e/o intestinal obstruction is seen.

RETROPERITONEUM: Abdominal aorta, IVC, portal vessels, SMA, splenic vein, coeliac axis are well opacified by the contrast shows normal appearance.

URINARY BLADDER: is well distended. Wall is normal in thickness. No obvious hyperdense calculus or mass is seen.

No e/o ascites seen.

No e/o any lytic/sclerotic lesion is seen in visualized bones.

Bilateral lung bases are normal.

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Spiral C.T., Digital X-ray, Ultrasound, Colour Doppler 3D/4D, ECG & Pathology:- TB Gold, Biop

All Tumor Markers and All Hormone Assays

Note: Impressions professional opinion & not a diagnosis. All modern machines/procedures have their limitations. If there is variat

Examination may be repeated or re-evaluated by other investigations.

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DISCUSSION

In young age group chronic appendicitis is common disease but Koch's abdomen is very rare. In this patient most common symptom was pain in right ileolumbar region for 6 month along with loss of weight and loss of appetite. Therefore surgeons get confused either this is a case of chronic appendicitis or Koch's abdomen. At present there is no confirmatory test that can help to differentiate either this is a chronic appendicitis or Koch's abdomen. Some test may help to support Koch's abdomen like as increased lymphocytes, increased ESR, and increased serum adenosine deaminase, montoux test, ileal thickening enlarged mesenteric lymph node. CT scan may be helpful. Initial management was conservative .but when patient did not respond to conservative treatment then surgery may be performed. Even in areas where the disease is prevalent, a correct clinical diagnosis is made in only half of the patients [8].abdominal tuberculosis is a great mimicker of many abdominal diseases like as appendicitis, pancreatitis or pancreatic cancer, large bowel malignancy. No clinical, biochemical or radiological parameter is specific for abdominal tuberculosis. CT scan may show generalized or localized ascites with thickened bowel or enlarged lymph nodes [9]. Definitive diagnosis is possible only in about 80% case and therapeutic diagnosis is in about 20%.most of the abdominal tuberculosis responded within 2 weeks of anti-tubercular treatment [4]. Laparotomy or laparoscopy helps to diagnose definitive case of abdominal tuberculosis. sometimes abdominal cocoon which is mainly diagnosed intra-operatively and in this condition needs open surgery to peel away the fibrous tissue encasing the bowel [10].in this case only serum adenosine deaminase and ESR was raised slightly CT scan was also suggestive of ileal bowel thickening. All these were helpful to diagnose abdominal tuberculosis preoperatively. Intraoperatively multiple tubercles were present on ileum that confirms diagnosis.

CONCLUSION

Appendicitis is very common while abdominal tuberculosis is very rare. In this case only on basis of symptoms diagnosis was not confirmed either appendicitis or abdominal tuberculosis. Even an experienced clinician could not make diagnosis because abdominal tuberculosis is a great mimicker of much abdominal pathology. Therefore multiple nonspecific tests must be performed like as raised ESR, elevated serum adenosine deaminase, increased lymphocytes count, CT scan, biopsy pre and post operatively if possible. If abdominal tuberculosis confirm intraoperatively, anti tubercular treatment, must be started. In this case preoperatively abdominal tuberculosis was suspected along with inflamed appendix. During appendectomy multiple tubercle lesions were present on ileum. Postoperatively antitubercular treatment was started and patient recovered completely.

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