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RESEARCH ARTICLE

MULTI ORGAN DYSFUNCTION IN A POST-COVID PATIENT - A CASE REPORT

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Abstract

The typical presentation of SARS-CoV-2 VIRUS infection is pulmonary involvement causing COVID 19 pneumonia. Although in recent times cases are being reported from different hospital that shows multi organ involvement due to COVID-19 virus. Acute pancreatitis is one of the main presentations .here is a case report that shows not only acute pancreatitis but elevated liver enzymes causing non alcoholic liver disease along with gallbladder involvement in a patient who was presented as COVID 19 negative.

Introduction:-

Case Report:

A 34 year old female was admitted in emergency department of a tertiary care hospital in Kolkata with complaint of acute abdominal pain mainly in the epigastrium along with five to six episode of vomiting on the same day. The patient was COVID 19 RTPCR positive 1 month back . She did not get admitted in any hospital and took treatment for the same through video consultation and she was in home isolation . Her symptoms of corona virus infection subsided within two weeks , and she did not get tested any futher for COVID 19.

On physical examination she had sever tenderness over the epigastrium for which she was treated with intravenous pantaprazole 40 mg suspecting that she might be having Acute Gastroenteritis. There was no palpable masss per abdomen,no pallor,no edema,no icterus. Patient had a history of fibroid uterus. All routine blood investigations were sent and ultrasonography of whole abdomen was done

Here is a Table 1: showing all her blood parameters on admission

Table 1:-

TEST NAME	OBSERVED VALUE	REFERENCE RANGE
Total leucocyte count	11.8x10^3 cells/cumm	4x10^3-11x10^3cells/cumm
C-Reactive Protine(CRP)	<0.50 mg/dl	<0.80 mg/dl
Serum Sodium	138.11mmol/L	136-144mmol/L
Serum Potassium	3.38 mmol/L	3.36-5.1mmol/L
Urea	34 mg/dl	17-43mg/dl
Creatinine	0.72mg/dl	0.7-1.2 mg/dl
Amylase,Total	**4947.00 U/L**	36-128 U/L
Lipase	**14206.05 U/L**	8-57 U/L
Bilirubin Indirect	**0.92 mg/dl**	0.2-0.7 mg/dl

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Bilirubin Total	**1.59 mg/dl**	0.3-1.2 mg/dl
Bilirubin Direct	**0.67 mg/dl**	0.1-0.5 mg/dl
SGOT(AST)	**197.07 IU/L**	15-41 IU/L
SGPT(ALT)	**99.06 IU/L**	14-54 IU/L
GAMMA GT(GGT)	**109.78 IU/L**	7-50 IU/L
TOTAL PROTIEN	**7.92 g/dl**	6.1-7.9 g/dl

Image Finding:

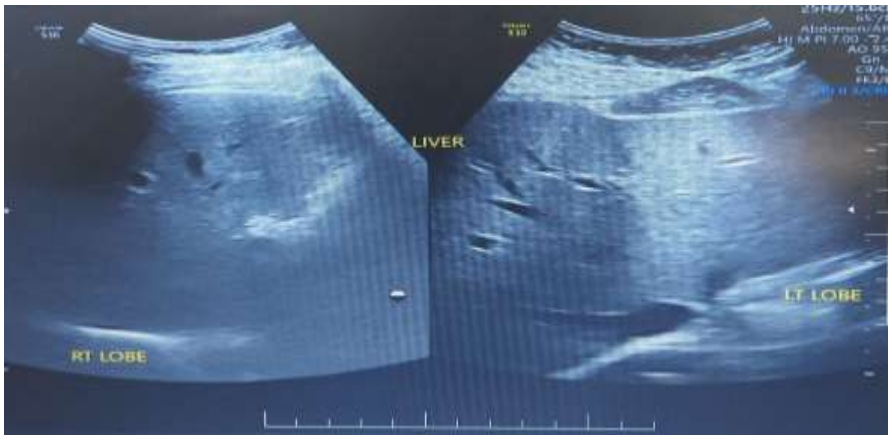

FIG 1:- Ultrasound whole abdomen showing fatty liver GRADE II.

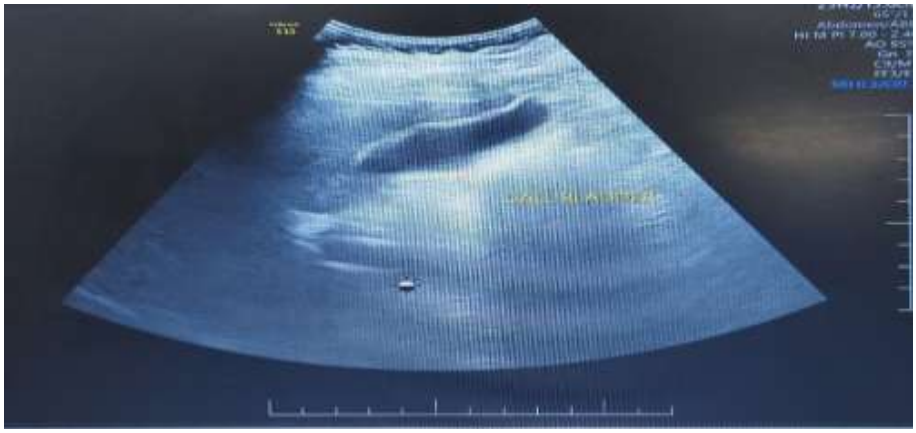

FIG 2:- Ultrasound of whole abdomen shows gallbladder with sluge but without any stone.

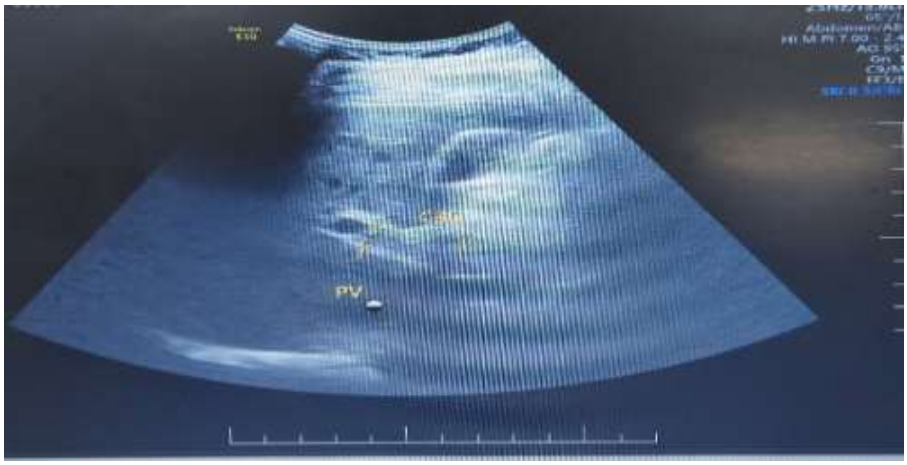

FIG 3:- Ultrasound of whole abdomen shows CBD but without any stone.

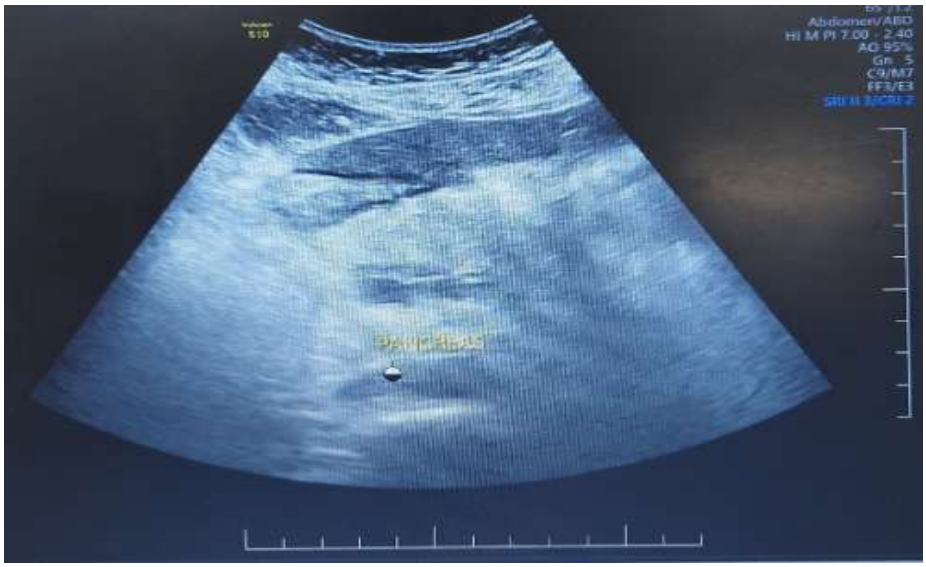

FIG 3:- Ultrasound of whole abdomen shows Edematous pancreatitis.

Diagnosis was done as Acute edematous pancreatits due to viral disease.Later on patients COVID 19 RTPCR was repeated and though patient did not have any symptoms of coronavirus infection like fever,cough shortness of breath her RTPCR report came positive on the same day with "cycle threshold value" or ct value 15.which proves high viral load.

Dicussion:-

COVID-19 disease has impact on the gastrointestinal tract in less than 10% of cases which include nausea/vomiting (7.8%), diarrhea (7.7%), abdominal pain (2.7%), and liver enzyme abnormalities (15%) [1]. Initially, there appeared to be no link between the SARS-CoV-2 virus and the pancreas. Since then, a few cases of COVID-19 disease presenting as acute pancreatitis have been reported. Several mechanisms of pancreatic injury have been described, such as direct cytopathic effect of the virus and dysregulated immune response induced by SARS-CoV-2 that targets the pancreas in addition to the lungs [2-7].

In this present case, SARS-CoV-2 was an preciding cause of acute pancreatitis by direct cytopathic injury or whether an attack of acute pancreatitis with its systemic inflammatory state predisposed the patient to SARS-CoV-2 virus is a matter of debate. The patient survived the first attack of COVID 19 but as she did not get tested after her pulmonary symptoms subsided the viral load kept on increasing which lead to acute severe pancreatitis .Here viral cause was being decided for her sudden pancreatitis because the patient was an young female ,non alcoholic(Chronic alcoholism is one of the leading cause of acute or sub acute pancreatitis in INDIA),her blood culture showed no growth, her procalcitonin ,serum level was normal. So due to the rapid progression of both liver and pancreas and gall bladder , at that time only viral pathogenecity behind her conditioned was decided.

Conclusion:-

Patient was managed with Injection Meropenen 1 gm thrice daily for 7 days,Injection Doxycylin 100 mg twice daily for 5 days,Tablet Pancrelipase 10000 for 10 days .Injection Ulinastatin 200000 IU for 10 days mainly.patient responded well with these medications .and her elevated amylase and lipase level and elevated liver enzymes level came down to near normal range and the patient was fit to discharge.

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