

# A Case Study on SLE Unmasked As Intestinal Pseudo Obstruction with Lupus Nephritis in the Background Of Covid 19

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## I. Introduction:

SLE is an autoimmune inflammatory disorder.It can affect multiple organ systems.Intestinal pseudoobstruction(IPO) is a severe manifestation of sle but it is very rare as an initial manifestation in a previously undiagnosed case. It may represent a diagnostic challenge.a prompt diagnosis utmost important to avoid unnecessary surgical intervention in intestinal pseudoobstruction but also IPO respond well to the timely initiation of corticosteroids and can ensure a better prognosis.the median time from onset of ipo to diagnosis was 1.8 months and misdiagnosis occurs in 54.1% patients.

## II. Case Study

A female patient of age 39years was admitted in the ER deparment with the following complaints : Loose watery stools(6-7 episodes per day) since 2 months,post prandial vomiting since 2 months. Patient was complaining of abdominal distension since 20 days and mild productive cough since 10 days. She is a k/c/o hypothyroidism and on regular medication of 50 mcg of Levothyroxine daily. She was then admitted in the Intensive care unit for further management. On admission she was Afebrile with tachycardia, signs of dehydration and mucocutaneous pallor with soft and distended abdomen without guarding/rigidity/pain in abdomen. She had history of multiple admissions for the same complaints but there was no significant relief. Her HRCT was showing CORADS -5 .In routine investigations there was significant anemia with haemoglobin of 6.0gm,WBC count was reduced to 2400cells/mm<sup>3</sup> indicating leucopenia and electrolyte profile revealed Hyponatremia (sodium 165mmol/l) with hypokalemia (potassium 2.7mmol/l).Renal function tests shows increased creatinine level (2.05mg/dl)and raised urea(104mg/dl)

**Discussion:** Patient was started with routine treatment for Acute Ge, Acute Kidney Injury And Abnormal Electrolytes.But there was no improvent in the symptoms even after 48 hrs of Intensive treatment. Further workup was done and in her detailed history it was revealed history of fever for 3 days for which she took symptomatic treatment and the symptoms were subsided. As on admission her CT-THORAX showed CORADS -5 so there was a high suspicion of post infection of SARS-COVID --Of SARS-CoV2. IgG & IgM antibodies were sent which turned out to be positive. Her urine examination revealed (+) proteins, urine protein(363) creatinine(29),urine protein and creatine ratio was 12.5, 24 hr urine protein(150gm)haematuria (1+), USG abdomen should bilateral mild pleura effusion, dilated fluid filled bowel loops with sluggish peristalsis. CECT abdomen showed diffuse bowel wall edema & b/l pleural effusion. Bilateral hydrourteronephrosis, minimal ascites,, abnormal bowel gas patterns. X-ray abdomen: dilated bowel loops, multiple air fluid levels.

In view of all the above abnormal findings, auto immune workup was done. ANA(LFD method): 4 positive, titre 1:100. SSA/Ro positive. C3 & C4 complements were low : 36.90 & 5.80 respectively. Focal calprotect was normal. Fecal examination for ova, trophozoites, cysts were negative. Later renal biopsy was done which showed features of tubulo-intestinal nephritis with immune deposits along the TBM and bowman's capsule. The patient was filding into the new EULAR/ACR classification criteria for diagnosing SLE as she had leukopenia (3), pleural effusion (5), proteinuria >0.5/24hrs(4), lupus nephritis (8), low C3 & C4 levels (4).Her HRCT chest was showing CoRAD-5. Rapid antigen and RT-PCR for covid were negative. In investigations there was significant anemia with the HS of 8.6gm % WBC was 2400(leucopenia), electrolytes showed

hypernatremia(165) and hypokalemia(2.7). RFT showed increased creatinine(2.05) and urea(104). Patient was started on routine treatment for acute GE, diselectrolytemia and AK.

In view of positive antibodies for covid – 19,the patient was suspected to have an hyperactive immune system which lead to flare up and diagnosis of auto immune disease SLE and presented with intestinal pseudo obstruction related secondary to SLE.For SLE,the patient was treated with IVIG 400mg/kg/day for 5 days and methyl prednisolone 1gm for 3 days.She was significantly improving from 3<sup>rd</sup> day of IVIG therapy and was later discharged with oral steroids and MMF therapy.



**CECT ABDOMEN**

### **III. Conclusion:**

Intestinal pseudo obstruction is an usual rare manifestation of SLE and represent diagnostic challenge. We underscore the importance of early and prompt diagnosis of this condition, which is likely to have a positive impact on clinical outcome and present unnecessary gastric intestinal surgery. IPSO is a non- mechanical obstructive bowel injury. Evidence points towards the use of IVIG and steroids as mainstay of therapy.

### **Abbreviations**

CT : Computed tomography  
COVID-19:Coronavirus disease 2019  
SARS-CoV-2: Severe acute respiratory syndrome coronavirus  
SLE: Systemic lupus erythematosus  
IPO : Intestinal pseudo obstruction

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