

# Secukinumab induced Hornet's nest reaction of Crohn's disease in patients with Ankylosing spondylitis

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## Introduction

- Secukinumab is a human IgG1 monoclonal antibody that selectively binds to the interleukin-17A (IL-17A) cytokine and inhibits its interaction with the IL-17 receptor.
- Despite the important role of agents that target the action of IL-17 in a number of autoimmune inflammatory conditions, it is not only ineffective for management of CD but also that their use may induce or exacerbate the condition.
- Crohn's Disease flare up in Ankylosing Spondylitis can be attributed to the role of IL-17 antagonist secukinumab (cosentyx).

## Patient Presentation

### History of Presenting Illness:

- 49 year old man with history of ankylosing spondylitis treated with methotrexate and recently initiated on secukinumab presented to the hospital with diffuse abdominal pain.
- Associated with nausea and diarrhea.
- Notably, his colonoscopy 3 weeks prior to this presentation was unremarkable.

## Clinical Course

- Admitted for sepsis secondary to Enterobacter Coli bacteremia.
- CT Abdomen: Extensive circumferential ileal wall thickening and inflammation, with microperforation but no discrete abscess.
- Treatment with broad spectrum antibiotics and bowel rest without relief.
- CT entereography obtained which showed enterocolonic fistulas (figure1) and ileal inflammation and enteroenteric fistula (figure 2) suggestive of small bowel Crohn's disease.
- After treatment of bacteremia, the patient was initiated on oral steroids and secukinumab was discontinued and he was started on IV infusion of infliximab which was accompanied by significant improvement in his symptoms.



Fig 1:CT Entereography showing Enterocolonic fistula. There is a thin trickle of contrast material which shows communication between the sigmoid and an adjacent loop of ileum.

## Results

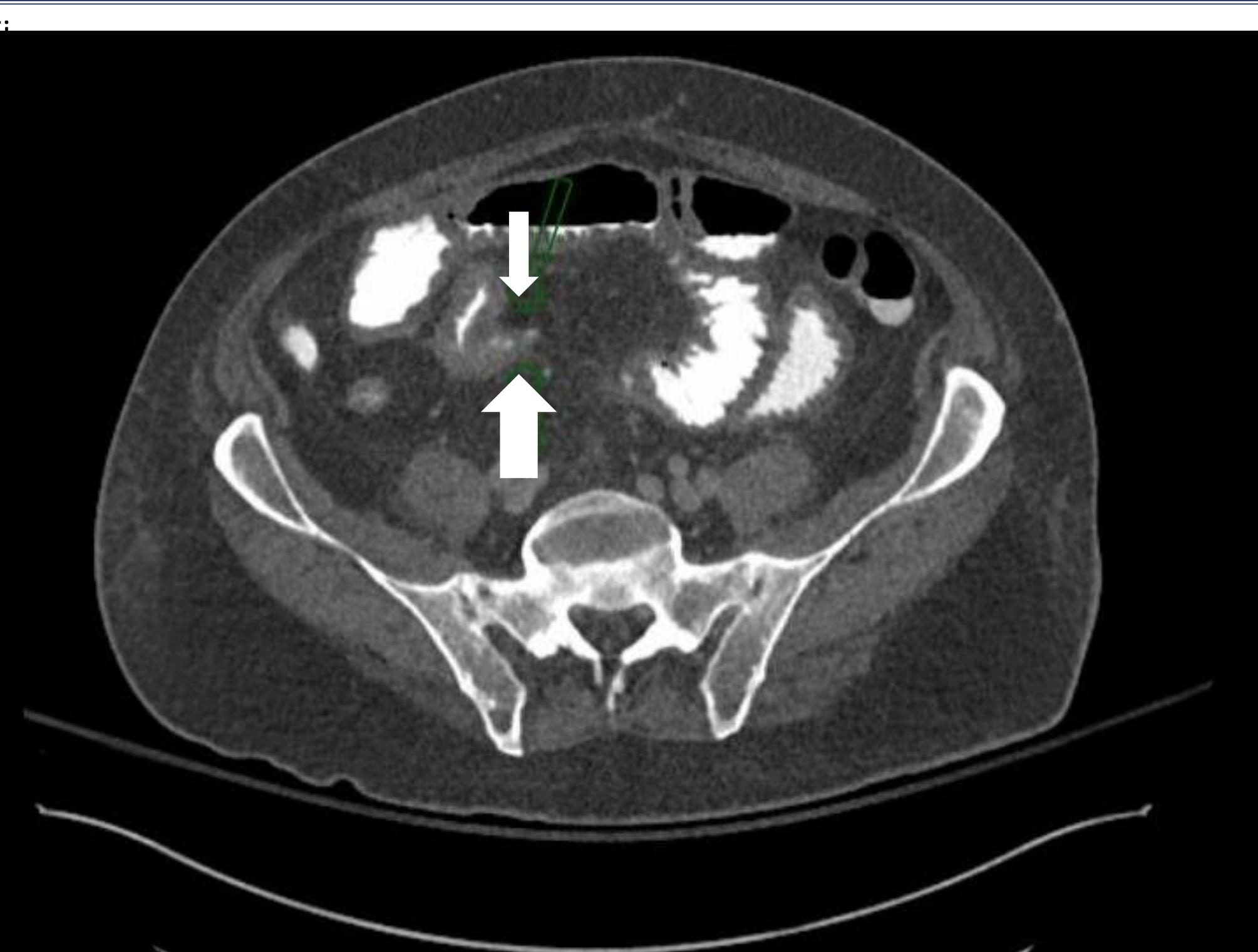


Fig 2: CT Entereography showing Enteroenteric fistula. There is a larger outpouching off of a loop of distal ileum which could represent an additional sinus tract.

## Discussion

- A course of Secukinumab for as little as 2 weeks can cause moderate to severe inflammation with complications such as fistulization in a previously healthy man.
- In patients with autoimmune conditions like Ankylosing spondylitis or psoriasis, the use of IL-17 antagonists should be cautious due to their underlying pro-inflammatory mechanisms.

## Future Prospects

Our case highlights the importance of early recognition and treatment of Crohn's disease secondary to secukinumab in patients with ankylosing spondylitis and emphasizes the need for such patients to be closely managed by a multidisciplinary team which includes both gastroenterologists and rheumatologists.

- A careful search for IBD family history and measurement of faecal calprotectin(FC) levels before initiation of IL-17 inhibitors.
- Tight monitoring of gastrointestinal symptoms.
- Need for Long term pharmacovigilance studies to obtain long term safety data of IL-17 inhibitor.

## References

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