



# Tacrolimus-Induced Esophageal and Colon Ulcers: A Case Report

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## Introduction and Aims

- Tacrolimus is one of the most used immunosuppressive medications for patients with organ transplants<sup>1</sup>.
- Here we describe an uncommon side effect of Tacrolimus presenting as gastrointestinal ulcers.

## Case Description

- 44-year-old female
- History of orthotopic heart transplant due to arrhythmogenic right ventricular hypertrophy
- On Tacrolimus for immunosuppression for 10 months
- Presents with large volume hematochezia, syncope and fall.
- Physical exam:
  - Sinus Tachycardia
  - Hypotension
  - Digital exam grossly normal

## Case Description (continuation)

- Remarkable labs:
  - Hemoglobin of 3.5 g/dL
  - Lactate of 3.6 mmol/L
- Esophagogastroduodenoscopy:
  - One cratered nonbleeding 5x2-cm mid-esophageal ulcer (Figure 1)
- Colonoscopy:
  - Two nonbleeding cratered ulcers, largest of which was 6x2-cm in the transverse colon (Figure 2)
- Biopsies:
  - Granulation tissue and necro-inflammatory debris consistent with ulceration and no apparent culprit.
- She developed hemorrhagic shock which required two coil embolizations done by interventional radiology.
- The decision was made to discontinue Tacrolimus, as a suspected culprit medication and within days her bleeding and esophageal pain improved.

## Discussion

- The workup of these large gastrointestinal ulcers was a challenge:
  - Endoscopic and Histologic appearance were atypical.
  - Serologic and Infectious workup were negative.
- After discontinuation of Tacrolimus:
  - Hematochezia stopped
  - Esophageal pain improved
  - Patient was able to eat
- A possible explanation is that Tacrolimus inhibits TGF- $\beta$  which mediates granulation tissue and wound re-epithelialization<sup>2</sup>.

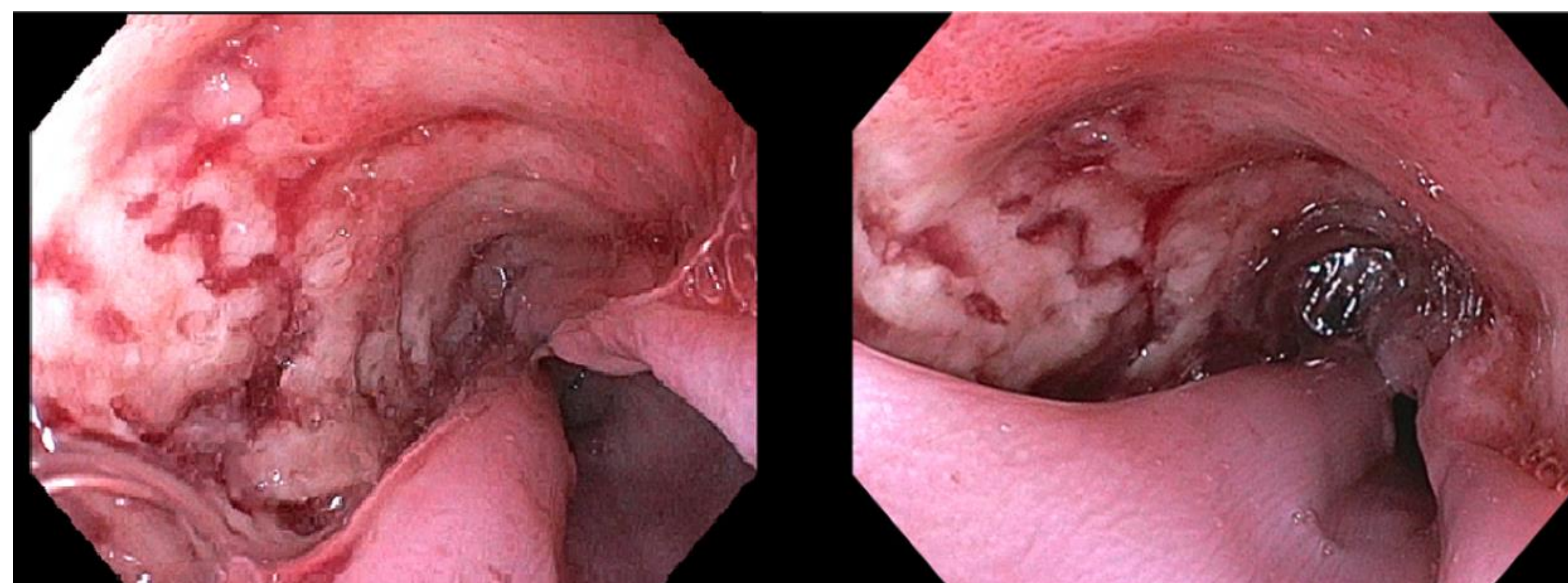


Figure 1. 5x2-cm mid-esophageal ulcer.

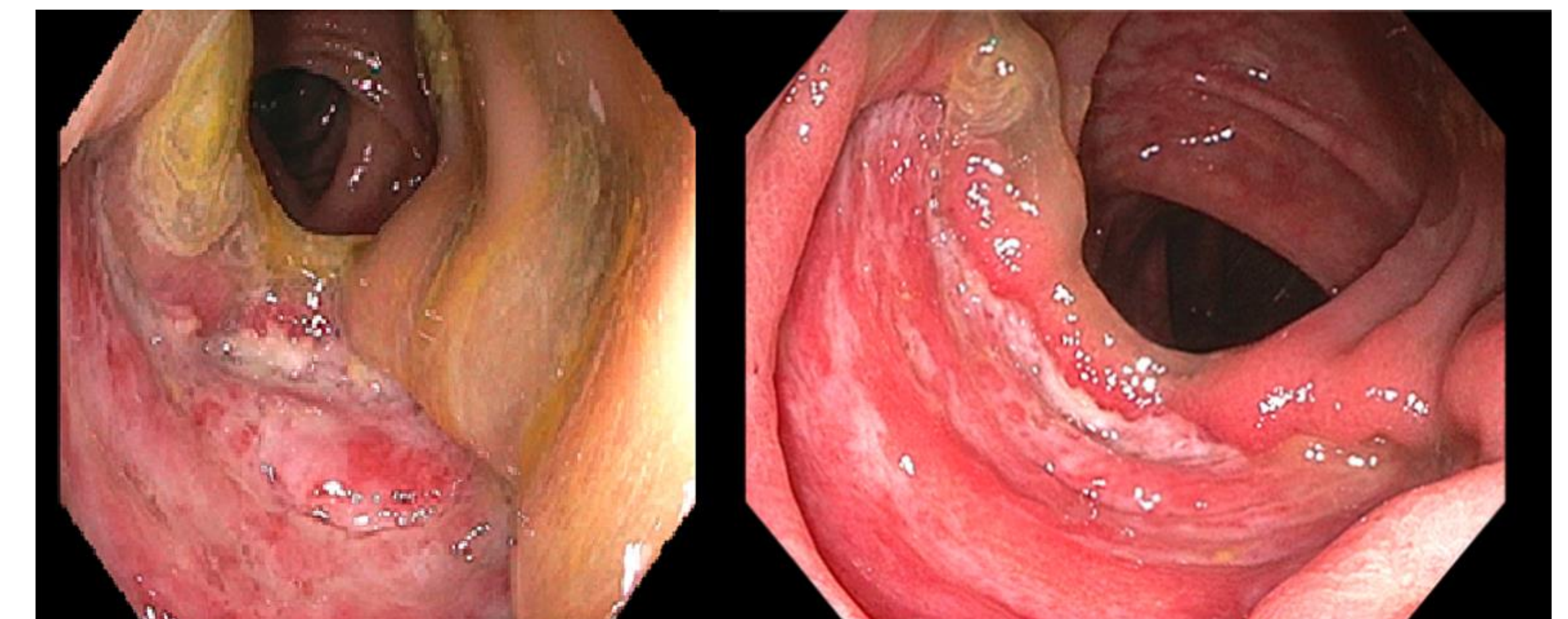


Figure 2. 6x2-cm transverse colon ulcer.

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## References

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