Appendico-cutaneous fistula: a diagnostic dilemma

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Case

The diagnostic challenge of a longstanding lesion present in an immunosuppressed patient

- 26 year old Caucasian gentleman presented due to a five year history of a nodule on his lower back
- He described a variable amount of purulent discharge from the lesion
- Background: double lung transplant, secondary to cystic fibrosis (June 2014)
- Medications: Tacrolimus, Mycophenolate Mofetil and Prednisolone
- Examination revealed a suppurative 3cm by 3cm nodule on the right flank
- Systemically well

Previously extensively investigated in another institution:

- The initial punch biopsy: epidermal acanthosis, focal permeation of acute inflammatory cells, dense dermal infiltration of neutrophils → histologically consistent with neutrophilic dermatosis
- Two subsequent biopsies - superficial dermal perivascular infiltrate with sparing of the deep dermis and subcutis →non-specific
- Three subsequent excisions of this nodule → granulation tissue only
- The working diagnosis at presentation to our centre → idiopathic panniculitis, post-operative over-granulation

- Prior treatments: super potent topical and high dose oral corticosteroids, topical antibiotics, minocycline, hydroxychloroquine

Investigations

- Ultrasound: sinus tract from the skin to at least 2.6cm deep
- MRI: fistulous tract extending from the intra-abdominal space to the skin overlying the lumbar spine
- CT with contrast: 12cm thick-walled enhancing fistulous tract extending along the medial gluteal region to discharge at the skin of the lower back
- Referral to colorectal surgery → laparoscopic appendectomy
- Intraoperative findings were of a retrocaecal appendix with its tip burrowed into the retroperitoneum.
- Complete resolution of the fistula and nodule were noted post-operatively

Conclusion

- Appendico-cutaneous fistulae - rare complication to acute perforating appendicitis/faecolith obstruction
- No history of acute appendicitis/abdominal surgery reported by this patient
- However, long-term treatment with oral corticosteroids may have masked the signs of acute appendicitis, as in the case reported by Koak et. Al(1)
- Appendectomy +/- excision of the fistula = recommended method of treatment
- The authors of this case wish to highlight this differential in a non-healing, suppurative lesion present on the trunk

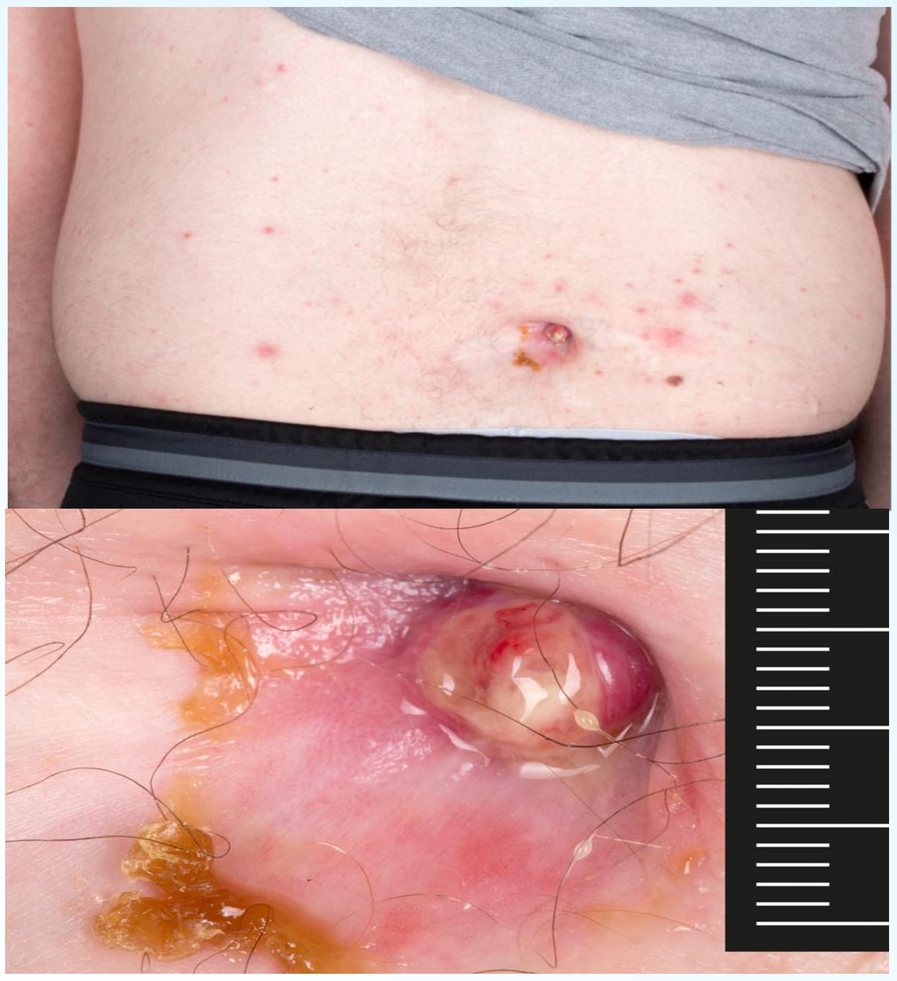

Figure 1. Nodular lesion at right back

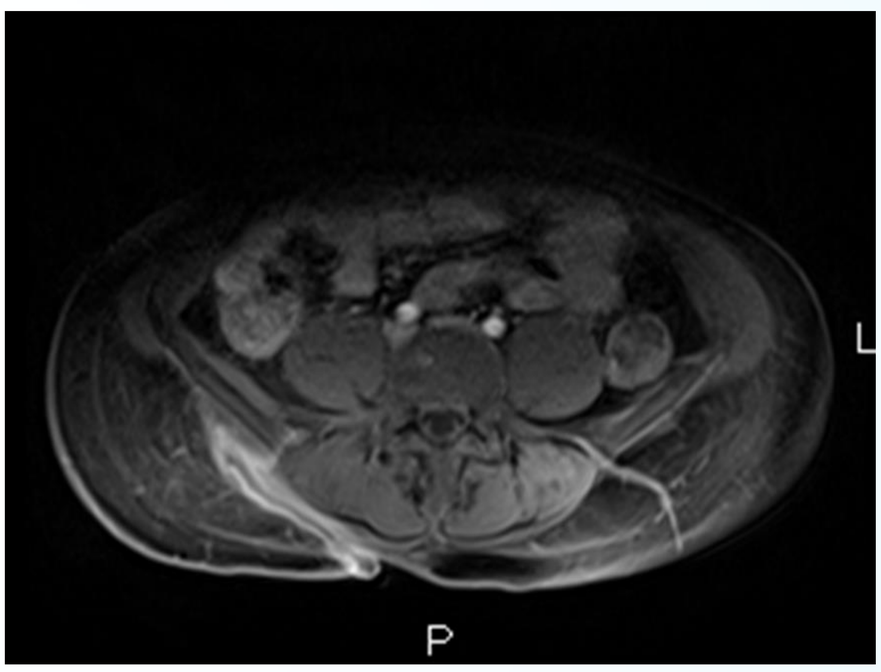

Figure 2. CT with Contrast findings

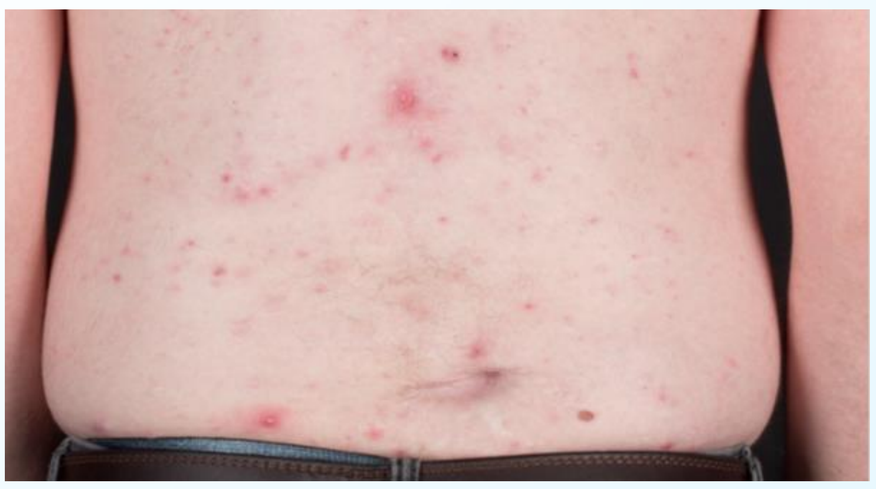

Figure 3. Resolution of lesion post appendectomy.

References

Koak Y, Jeddy TA, Giddings AE. Appendico-cutaneous fistula. J R Soc Med. 1999 Dec;92(12):639-40. doi: 10.1177/014107689909201211. PMID: 10692889; PMCID: PMC1297473.