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

References