Outcome of Perianal Fistulising Crohn's Disease in Children at a Tertiary Referral Centre for Inflammatory Bowel Disease in the United Kingdom

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Introduction

Crohn's disease (CD) may affect any part of the gastrointestinal tract. Perianal CD may include skin tags, fissures, abscesses, strictures, or fistulae. Perianal CD is associated with increased morbidity and poor quality of life (1). It requires robust medical and surgical treatment. Anti-tumour necrosis factor (TNF) e.g., Infliximab and Adalimumab are the treatment of choice in perianal CD(2).

Aim

The aim of the study was to determine the management and outcome of perianal fistulae in children with Crohn's disease in the era of biological therapy.

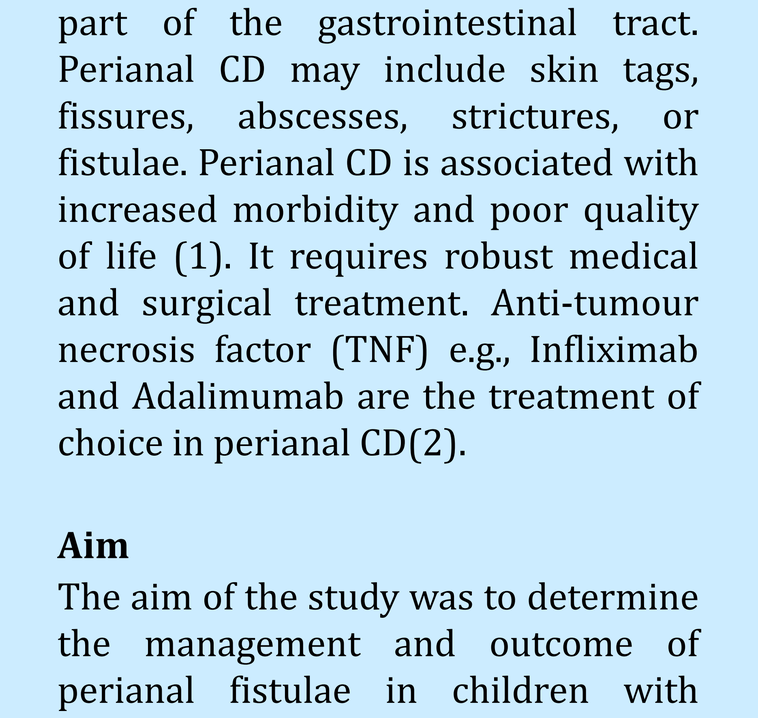

Figure 1

Materials and methods

Over a ten-year period, all children who had been subjected to an MRI pelvis with suspected fistulising perianal disease were identified (2011 – 2021). Data were collected retrospectively and included the course of treatment, and outcome of fistulising disease. Complex perianal fistula was defined as a fistula originating from a high position, associated with a perianal abscess, anorectal stricture, or rectovaginal fistula(1).

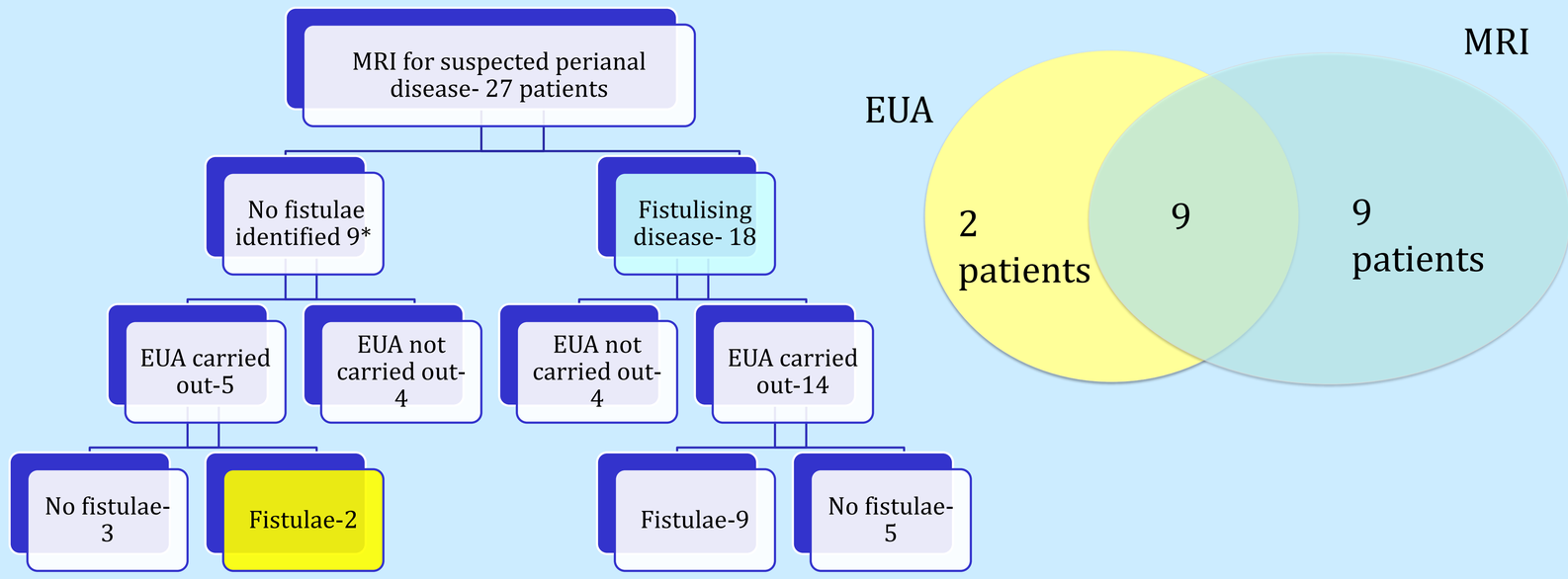

Figure 2: Yield of MRI & EUA (Examination under Anaesthetic) for fistulae detected in patients who had MRI pelvis & concurrent EUA (flow chart & Venn diagram)

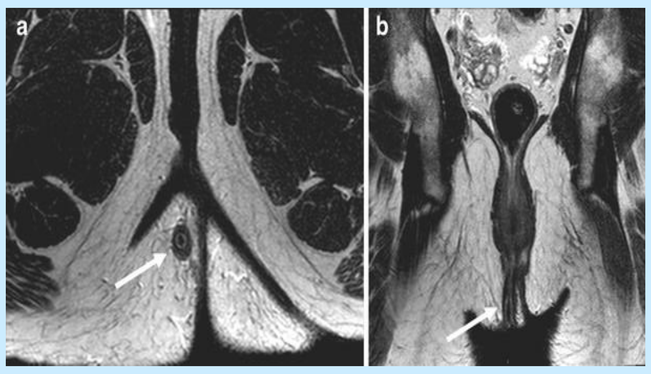

Figure 3: Sagittal (a) and coronal (b) T2-weighted images of a patient treated with seton at follow-up. The seton is seen as a dark inner structure in the middle of the fistula (white arrows)

	No seton required	Seton inserted*	Seton inserted followed by defunctioning stoma
All perianal fistulae	14	4	2

Figure 4: Surgical treatment in patients who had fistulizing CD

Results

Of the 20 patients with fistulising perianal disease, 8 patients presented with fistulising disease at the time of diagnosis of IBD, while 12 presented with fistulising disease during the course of follow up (range 3mo to 59mo post diagnosis; Median 4mo). Mean age at the time of diagnosing fistulizing CD was 14 years.

All patients with fistulising perianal disease were treated with biologics. 16 patients were commenced on biological therapy at a median of 2 months following the detection of perianal fistula. 4 patients were already on Infliximab at the time of first presentation with perianal fistula.

Of the 18 patients who had fistulae diagnosed on MRI, 11 had follow up MRI between 1-52 months (median of 19months).
Resolution of fistulae was seen in 2 patients. Both of them were already on treatment with Infliximab prior to the diagnosis of fistulising disease and neither of them had a surgical seton.

Conclusion

Adjunct EUA alongside MRI pelvis enhances the diagnostic yield of fistulising perianal Crohn's disease.

Recurrence or persistence of fistulising perianal disease remains a challenge despite the use of biological treatment.

Perianal fistulising disease probably requires a higher therapeutic drug level in order to achieve complete resolution.

References

1. Wang H, Wu Y, Ye C, Liu Z, Wang X. Perianal disease onset age is associated with distinct disease features and need for intestinal resection in perianal Crohn's disease: a ten-year hospital-based observational study in China. BMC Gastroenterol [Internet]. 2021;21(1):1–10. Available from: https://doi.org/10.1186/s12876-021-01961-9
2. Van Rheenen PF, Aloi M, Assa A, Bronsky J, Escher JC, Fagerberg UL, et al. The Medical Management of Paediatric Crohn's Disease: An ECCO-ESPGHAN Guideline Update. J Crohn's Colitis. 2021;15(2):171–94.
3. Crandall W, Hyams J, Kugathasan S, Griffiths A, Zrubek J, Olson A, et al. Infliximab therapy in children with concurrent perianal crohn disease: Observations from REACH. J Pediatr Gastroenterol Nutr. 2009;49(2):183–90.
4. Criado J de M, del Salto LG, Rivas PF, del Hoyo LFA, Velasco LG, Isabel Díez Pérez de las Vacas M, et al. MR imaging evaluation of perianal fistulas: Spectrum of imaging features. Radiographics. 2012;32(1):175–94.

*Errata On further interrogation of data , these numbers are different from those in the abstract