# Skin deep connections: patients with stricturing Crohn's disease are more likely to have a history of skin scarring than those with non-stricturing Crohn's and non-IBD controls

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## BACKGROUND

- The mechanism and prediction of stricturing Crohn's disease (CD) to guide medical therapy remains elusive. Formation of hypertrophic and keloid skin scars have not been previously studied in IBD. This study aimed to evaluate the nature of skin scars in patients with CD, and their association with different phenotypes.

## METHODS

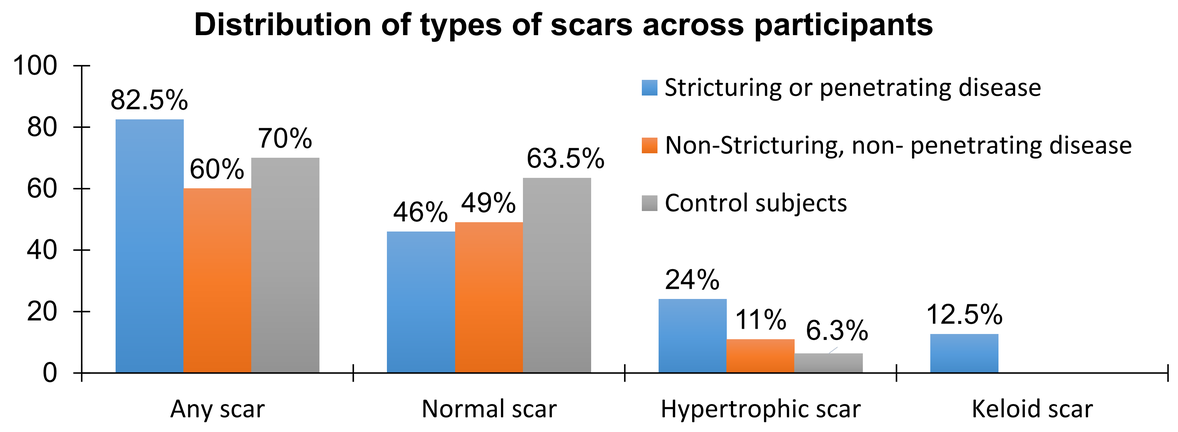
- Adult patients attending a tertiary IBD service were divided into three groups (non-IBD, non-structuring/non-penetrating CD and stricturing/penetrating CD).
- The primary outcome of the study was the prevalence of either hypertrophic or keloid scarring. Secondary outcomes included the rates of scarring overall as well as keloid and hypertrophic scars individually between the three groups.

## RESULTS

- 189 patients were recruited (Table 1)

| | Stricturing or penetrating disease | Non-Stricturing, non-penetrating disease | Control subjects | P value |
|---|---|---|---|---|
| **Total (n)** | 63 | 63 | 63 | |
| **Gender, Number (%)** | | | | |
| Male | 48 (67) | 27 (43) | 32 (51) | |
| Female | 15 (24) | 36 (57) | 31 (49) | |
| **Age, Median (IQR)** | 45 (27-64) | 43 (32-60) | 61 (41-75) | 0.003 |
| **Disease location, Number (%)** | | | | |
| Ileal | 15 (24) | 27 (43) | NA | |
| Ileocolonic | 34 (54) | 19 (30) | NA | |
| Colonic only | 9 (14) | 17 (27) | NA | |
| Perianal | 27 (43) | 0 | NA | |
| Others | 2 (3) | 0 | NA | |
| **Past IBD-related surgeries** | 43 (68) | 0 | NA | |
| Stricture resection | 23 (54) | 0 | NA | |
| Perianal abscess drainage | 20 (46) | 0 | NA | |
| **Current IBD therapy, Number (%)** | | | | |
| TNF (+/- IM) | 42 (67) | 8 (13) | NA | |
| Advanced therapy (non-TNF) (+/-IM) | 14 (22) | 26 (41) | NA | |
| IM (+/- 5-ASA) | 3 (5) | 8 (13) | NA | |
| 5-ASAs only | 0 | 9 (14) | NA | |
| No therapy | 4 (6) | 12 (19) | NA | |

- Patients with stricturing/penetrating CD (36.5%) were more likely to have either hypertrophic or keloid scars than those with non-stricturing/non-penetrating CD (11.1%) and non-IBD controls (6.3%), $p < 0.0001$.
- There was no difference in the rates of normal scars ($p = 0.112$).




## CONCLUSION

- In this pilot cross-sectional study, a higher rate of hypertrophic or keloid scarring was demonstrated in patients with stricturing or penetrating disease in comparison to healthy controls and those with non-stricturing/non-penetrating disease, suggesting potential underlying common pathophysiology.
- Future studies confirming this novel association may provide an avenue for further study of predictive and therapeutic targets for IBD.