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OBJECTIVES

- Bone Mineral Disease (BMD) is an established complication of Inflammatory Bowel Disease (IBD) with a multifactorial etiology.
- Dual-energy X-ray absorptiometry (DEXA) scans are recommended in this patient population but there is a lack of clarity on frequency of screenings.
- **Primary Aim:** We sought to quantify the change in bone mineral density over time in high-risk patients with IBD

METHODS

Study Design:

- Single Institution Retrospective Cohort Study

Database:

- Boston Medical Center

Patient Selection:

- IBD patients who underwent DEXA scans based on risk factors for bone mineral disease
- Selected patient with at least two scans at least one year apart

Variables:

- Demographics, medical history, steroid history, bisphosphonate use

Outcome:

- Change in t-score over time

RESULTS

Demographics

Demographics	N=36 (%)
IBD diagnosis	
Crohn's Disease	24 (67%)
Ulcerative Colitis	12 (33%)
Sex	
Female	27 (75%)
Male	9 (25%)
Race	
Caucasian	21 (58%)
Black	9 (25%)
Smoking history	12 (33%)
Alcohol use history	13 (36%)
Previous fracture	2 (6%)
Taking calcium or Vitamin D	28 (78%)
Currently taking or >3 months of prednisone 5mg daily or equivalent	20 (56%)

Baseline DEXA Data

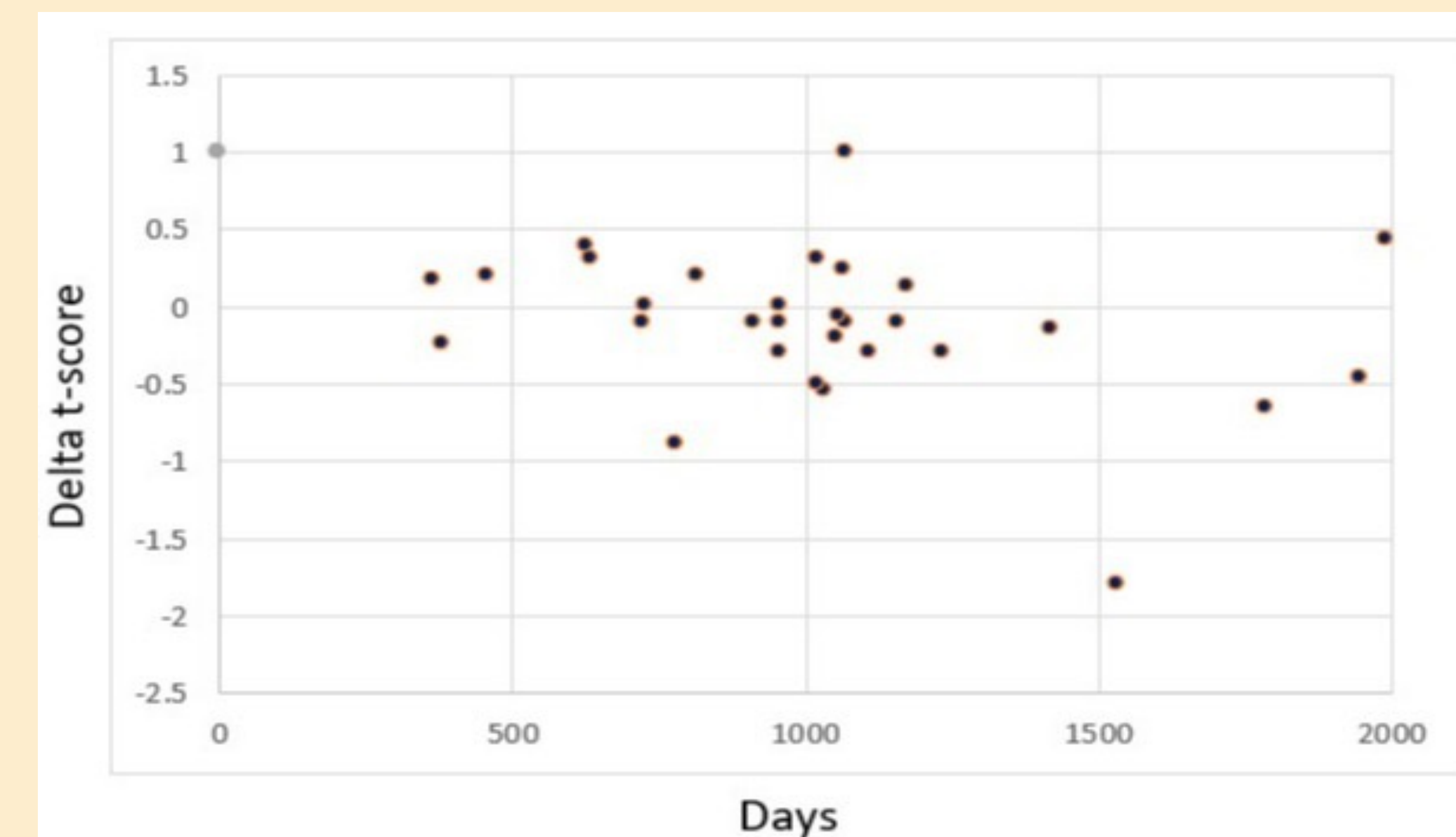
Average t-score (femoral neck)	-1.85
Normal t-score	8 (22%)
Osteopenia (-1 to -2.4)	16 (44%)
Osteoporosis (\leq 2.5)	12 (33%)
Average number of DEXAs per patient	2.6
2 DEXAs	23 (64%)
3 DEXAs	7 (19%)
4 DEXAs	3 (8%)
5+ DEXAs	3 (8%)

DEXA Scores Over Time

Average change in t-score per year	-0.04
Change in t-score at 5 years	
<-0.5	1 (3%)
-0.5 -- -0.1	17 (47%)
0 - 0.5	17 (47%)
>0.5	1 (3%)
Average change in t-score per year in patients receiving bisphosphonates (n=3)	+0.05

RESULTS

Change in T-score Over Time



CONCLUSIONS

- Change in T-scores in this high-risk IBD population remained similar from 0 to 5 years after initial DEXA scan
- A repeat DEXA scan within a 5-year interval may not be warranted in high-risk patients with IBD

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