**Results:** Twenty eight patients were enrolled in the study. They were 19 women (sex-ration M/F=0.6), with a mean age of 54 years [extremes: 13 - 73 years]. Most patients had type 1 AIH (89.2%). Seventeen patients were diagnosed at stage of cirrhosis (60.7%). Associated auto-immune manifestations were observed in 42.8% of cases. Overlap syndrome with primary biliary cirrhosis was noted in 21.4% of cases. Fifty five percent of patients were on steroid treatment with or without azathioprine. BMD was low in 9 patients (32%) as fellow: osteopenia in 6 cases and osteoporosis in 3 cases. There was a correlation between bone loss and use of steroid treatment but it wasn't statistically significant (p=0.07).
**Conclusions:** In our series, the prevalence of bone loss in AIH is high (45%). This data suggests that bone status should be assessed routinely in patients with AIH, especially in those on steroid treatment.
**Disclosure of Interest:** None declared
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## AB0834 RISK FACTORS FOR DECREASED BONE MINERAL DENSITY IN INFLAMMATORY BOWEL DISEASE IN A TUNISIAN COHORTE

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**Background:** Patients with inflammatory bowel disease [IBD] are at risk for metabolic bone disease. Many studies have identified various risk factors but most of them have involved western patients.
**Objectives:** The aim of this study was to investigate the prevalence and the risk factors for metabolic bone disease in Tunisian IBD patients.
**Methods:** Retrospective study including patients with IBD admitted in our department between January 2011 and December 2015. Demographic and clinical characteristics of patients were analysed. Bone mineral density of the femoral neck, total femur and lumbar spine was quantified by dual-energy X-ray absorptiometry.
**Results:** Among 82 patients followed for IBD (70.7% with Crohn's disease; 29.3% with Ulcerative colitis), a bone densitometry was performed in 56% of cases (n=46). 16 patients have osteopenia and 7 had osteoporosis, as assessed by T-score. Univariate analysis showed that Crohn'n disease in particular ileal disease, high steroid dose and the presence of extra-intestinal manifestations were significantly associated with a low bone mineral density (for all $p<0.05$). In the other hand, IBD duration since diagnosis, sexe, tabagism were not associated with bone loss.
In multivariate regression analysis, risk factors for decreased bone mineral density were IBD duration since diagnosis, high steroid dose, ileal crohn's disease and extra-intestinal manifestations.
**Conclusions:** In our Tunisian cohort of IBD patients, Crohn's disease, high steroid dose and extra-intestinal manifestations were associated with increased risk for metabolic bone disease. High risk patients should be identified and appropriate therapies should be started early to improve long term quality of life.
**Disclosure of Interest:** None declared
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## AB0835 DENOSUMAB AS A FIRST CHOICE DRUG FOR GLUCOCORTICOID INDUCED OSTEOPOROSIS TREATMENT INSTEAD OF BISPHOSPHONATE

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**Background:** Glucocorticoid induced osteoporosis (GIO) is serious problem for raising risk of bone fragile fracture. In general, first choice drug for GIO is bisphosphonate (BPH), however, denosumab (dMAB), a monoclonal antibody of receptor activator of nuclear factor kappa-B ligand, is closed up as a alternative selection for GIO recently.
**Objectives:** The aim of this study is to evaluate effectiveness of dMAB in bone mineral density (BMD) for GIO treatment compared to BPH.
**Methods:** In the patients in whom glucocorticoid steroid (GCs) have been administered for more than three months, who met indication criteria for GIO what was determined by the Japanese Society for Bone and Mineral Research in 2014, that is matrix calculated in adding points of past fracture history, age, dosage of GCs, and BMD value (1), were enrolled. Before March 2013, data was lacking, so patients who have been administrated GCs after April 2013 were picked up. Patients BMD at GCs administration, at 6 months after initial treatment, if drug was changed, also at 6 months after second treatment, for minimum lumbar spine (LS), femoral neck (FN), and greater trochanter (GT) were measured with dual-energy X-ray absorptiometry (DEXA). Patients were classified by drug for initial treatment and second drug if administered. Patients age, initial, average, and total dose of GCs, term length of administration, and BMD and its gain for each chance were compared with Mann-Whitney U-test and Student's paired T-test.
**Results:** 149 patients in whom 48 with no drug administrated (N), 24 for BPH naïve and continued (BB), 22 for BPH naïve and changed to dMAB (BD), 21 for dMAB naïve and continued (DD), 34 for dMAB naïve and changed to BPH (DB) were counted. In these, sex distribution was 26 for men and 123 for women. Underlying disease for administration of GCs were rheumatoid arthritis for 114, polymyalgia rheumatica for 12, idiopathic thrombocytopenic purpura for 9, systemic lupus erythematosus for 6, and others for 8. For groups, age at baseline, initial, average, and total dose, and term length of administration of GCs demonstrated no significant difference between any pairs of the groups. BMD at baseline for Group N demonstrated significant greater per-cent of young adult mean (%YAM) than Group DD ($p<0.01$) in all parts, yet greater than the other groups but not statistically significant. In Group N, BMD had significantly decreased from the baseline to 6 months later in all parts ($p<0.01$). In the other groups, BMD had shown gain at 6 months after drug administration in all part, however, in Group DB showed mean %YAM loss for GT after first and second drug administration compared to Group BD had shown %YAM loss after first but gain after second drug for FN (Table 1).

| First Drug (FD) | none | bisphosphonate | | denosumab | |
|---|---|---|---|---|---|
| Second Drug (SD) | none | none | denosumab | none | bisphosphonate |
| Cases | 48 | 24 | 22 | 21 | 34 |
| age at baseline | 69.7±10.8 | 73.7±16.5 | 81.8±12.2 | 72.5±11.5 | 71.5±10.8 |
| initial dose of GCs | 6.78±8.98 | 6.88±8.25 | 5.58±6.95 | 5.21±3.47 | 6.95±2.25 |
| average dose of GCs | 3.77±2.13 | 5.49±3.76 | 5.06±1.61 | 3.49±1.49 | 5.12±2.06 |
| term length of administration | 53.6±45.3 | 84.7±44.9 | 38.2±46.4 | 51.9±58.7 | 65.2±46.0 |
| total dose of GCs | 3836.6±4444.3 | 7170.2±10923.8 | 2447.1±6365.9 | 5017.1±9057.3 | 7898.2±772.9 |
| BMD of lumbar spine at baseline | 89.1±16.9 | 78.1±17.7 | 80.2±12.4 | 70.9±9.3 | 75.9±12.4 |
| BMD of LS at six months after administration of FD | 86.5±19.1 | 79.3±10.5 | 81.8±15.2 | 72.9±13.5 | 75.9±15.5 |
| BMD of LS at six months after administration of SD | | | 81.2±12.8 | | 77.3±9.2 |
| BMD of FN at baseline | 90.8±12.8 | 77.3±9.3 | 70.6±12.9 | 66.8±7.6 | 72.1±8.8 |
| BMD of FN at six months after administration of FD | 87.8±15.4 | 80.0±14.6 | 69.1±12.2 | 65.9±12.4 | 74.3±11.4 |
| BMD of FN at six months after administration of SD | | | 71.2±11.3 | | 74.4±15.3 |
| BMD of GT at baseline | 85.8±9.8 | 80.8±10.1 | 71.2±12.7 | 67.1±12.6 | 75.2±9.4 |
| BMD of GT at six months after administration of FD | 83.5±14.5 | 80.1±12.9 | 71.2±12.7 | 68.9±12.6 | 75±9.3 |
| BMD of GT at six months after administration of SD | | | 74.2±13.3 | | 74.2±10.3 |

Table 1: Results of glucocorticoid induced osteoporosis (GIO) patients for each group classified by used drugs. GCs : glucocorticoids, BMD : bonemineral density, LS : lumbar spine, FN : femoral neck, GT : greater trochanter. Unit in BMD is per cent of young adult mean (%YAM).

**Conclusions:** From these results, dMAB is effective role in raising BMD for GIO as a initial drug, and a second drug even after inadequate response to BPH. dMAB could be possible to be chosen as a first choice drug for GIO treatment.
**References:**
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## AB0836 PERFORMANCE OF QUANTITATIVE ULTRASOUND AND SIX OSTEOPOROSIS RISK INDEXES IN MENOPAUSAL WOMEN: VALIDATION AND COMPARATIVE EVALUATION STUDY

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**Background:** A number of questionnaire-based systems and the use of portable quantitative ultrasound scanners (QUS) have been devised in an attempt to produce a cost-effective method of screening for osteoporosis.
**Objectives:** to assess the sensitivity and specificity of different techniques and their ability to act as screening tools in relation to dual energy X-ray absorptiometry (DXA).
**Methods:** 295 white postmenopausal women aged over 60 were enrolled. Each subject completed a standardized questionnaire which permits the measure of six osteoporosis indexes and had bone mineral density (BMD) measured using QUS and DXA. Sensitivity and specificity of the different techniques in relation to DXA were plotted as receiver-operating characteristic (ROC) curves at DXA T-score total hip $\leq$ -2.5 (osteoporosis).
**Results:** BUA sensitivity and specificity values were respectively 76.8% and 51.2% at the total hip. The optimal cut-off T-score for QUS was -2 at the total hip. The osteoporosis self-assessment tool (OST) provided consistently the highest AUC (0.80) among the clinical tools and had the best sensitivity and specificity balance (90.2%>44.5%). OST negative likelihood ratio was 0.22.
**Conclusions:** OST (based only on the weight and the age) performed slightly better than QUS and other risk questionnaires in predicting low BMD at the total hip.
**Disclosure of Interest:** None declared
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## AB0837 BONE METABOLISM AND OSTEOPOROSIS RISK FACTORS ANALYSIS IN SPINAL CORD INJURY PATIENTS AT TWELVE MONTHS FOLLOW UP

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**Background:** The spinal cord injury associated with the immobilization of the