Clinical symposium axSpA: Treat-to-target in axSpA: myth or reality?  

**OP0314 FACTORS ASSOCIATED WITH 5-YEAR DRUG-FREE REMISSION IN EARLY ONSET AXIAL SPONDYLOARTHROPATHY PATIENTS: DATA FROM DESIR COHORT**  

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**Background:** It is recommended to target remission when treating a patient with a chronic inflammatory rheumatism. To date, drug-free (DF) remission has been poorly investigated in axial Spondyloarthritis (axSpA).  

**Objectives:** 1/To estimate the frequency of patients in DF remission after 5 years of follow-up in a cohort of early axSpA and 2/to assess the factors associated with 5-year DF Remission  

**Methods:** Patients: All patients included in DESIR (DEvenir des Spondyloarthrites Indifférenciées Récentes) cohort were selected for this analysis.  

**Definition of 5-year DF Remission:** I/All patients in ASAS partial remission and/or ASAS-d <1.0 at 5 year visit and 2/ taking no disease modifying anti-rheumatic drugs (DMARDs, including synthetic and biologics) only at 5-year visit (patients could have received DMARD before the 5-year visit) and 3/ with a NSAId score ≤ 25 at the 5-year visit.  

**Covariates analysed:** age, gender, smoking status, body mass index, disease classification criteria (ASAS, Amor, ESSG, New York), presentation at onset (peripheral or extra-articular features), disease activity at onset (BASDAI, ASAS-ESR, CRP, MASES, TJC or SJC), functional impairment at onset (BASFI, HAQ, ASMS, BASMI), comorbidities, baseline imaging data (radiographic sacroiliitis, mSASSS, MRI sacroiliitis, spine MRI Berlin score), NSAID intake within 6 months before baseline visit and 5-year treatment intake including DMARDs, corticoids and NSAIDS.  

**Statistical analysis:** The associations between each of these clinical factors and the 5-year DF remission were tested by logistic regression. A multivariate model was built, stepwise procedure, to identify the independent variables associated with 5-year DF remission.  

**Results:** Of the 708 patients included in DESIR cohort, 419 were seen at the 5-year visit and 72 (17%) were in DF remission. In the denosumab group, at 5-years of therapy, there was significant decrease in falls risk score (-1.4, 95% CI = -2.8 to -0.7; P = .01), significant improvements in the grip strength (+4.2Kg, P = 0.01), SPFF score (1.2 points; 95% CI = -0.7 to 2.2; P = .02), TUG (1.7 seconds; 95% CI = -2.2 to 0.1; P = .031) and gait speed (0.1 m/s; 95% CI = 0.03-0.2; P = .01). Zol and Aln improved significantly SPFF score (0.9 and 0.8 points; P = .04), TUG (1.4 and 13 seconds; P = .05) and gait speed (0.2 and 0.3 m/s; P = .02) respectively, however, there was no significant change in the falls risk (P = 0.06 and 0.07 respectively). 1-year after stopping Denosumab, there was significant worsening of the falls risk score, grip strength, SPFF score, TUG and gait speed (P = 0.1). There was no difference in all the measures 1-year after stopping Zol and Aln.  

There was no relation to the increase in BMD gained.  

**Conclusion:** Denosumab displayed positive impact and significant improvements in physical performance, grip strength and gait speed. Also, Denosumab, enhanced multidirectional agility as depicted by TUG. Collectively, this would explain the reduction of falls risk which got worse on stopping the medication.  

Osteoporosis and sarcopenia sharing similar risk factors, highlighting muscle-bone interactions, which may result in debilitating consequences, such as falls and fractures. RANK/RANKL/OPG pathway, a key regulator of bone homeostasis, which may result in debilitating consequences, such as osteoporosis and sarcopenia share similar risk factors, highlighting muscle-bone interactions, which may result in debilitating consequences, such as falls and fractures. 

References:  