standing RA patients. It is very important to set treatment goal for those management.

Objectives: The purpose of this study is to set treatment target using Timed Up and Go test (TUG) in relation to achievement of HAQ-DI remission (HAQ-DI < 0.5) with joint surgery in lower limbs.

Methods: Multicenter prospective observational cohort study was conducted among patients who underwent elective joint surgery for RA from April 2012 to March 2016 (Study registration: UMIN000012649). In this study, we collected data including age, sex, disease duration, drug therapies, and disease activity (DAS), TUG, and patient-reported outcome [HAQ-DI, EQ-SD (OQL), patient’s global assessment (PtGA) and BDI-II (depression)] at baseline and at 6 or 12 months after the surgery. Association between TUG and achievement of HAQ remission and cut-off values for HAQ remission were also determined using logistic regression analysis with adjustment of age and sex and ROC curve, respectively.

Results: Totally, 139 patients with elective joint surgery in lower limbs were analysed. Mean age, disease duration, HAQ-DI and TUG were 65.4 years, 17.5 years, 1,022, and 12.7 s, respectively. Performed joint surgeries were total hip arthroplasty; 10.1%, total knee arthroplasty; 33.8%, total ankle arthroplasty or ankle fixation; 10.1%, and foot arthroplasty; 46.0%. The surgeries can significantly improve the outcome measures, including TUG, DAS, PtGA, pain, EQ-SD and BDI-II other than HAQ-DI. In this study, 45 of 139 patients (32.4%) had HAQ remission status at baseline. 18 of 94 patients (19.1%) who had HAQ-DI>0.5 can achieve HAQ remission with the surgery. Notably, TUG at last observation was significantly associated with achievement of HAQ remission even after adjustment for age, sex, and DAS (1 s increasing of TUG. OR:0.72, 95% CI: 0.53–0.97). The adjusted TUG at last observation of patients with achievement of HAQ remission was 9.2 s (95% CI: 5.6–12.8) (figure 1). Cut-off of TUG at observation for achievement of HAQ remission was 9.2 s based on ROC analysis (figure 2). Importantly, We confirmed significant more improving of EQ-SD, HAQ-DI and TUG in patients who achieved TUG 9.2 s at last observation than in patients who did not (figure 3).

Conclusions: TUG was significantly associated with PRO; HAQ-DI and EQ-SD. The cut-off values of TUG (9.2 s) should be important to achieve good QOL and physical function for patients with joint surgery in lower limbs and could be suitable target for surgical procedure.

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AB0316 IS THERE A NEED TO RELOOK AT THE CUT OFFS OF RHEUMATOID FACTOR INDIAN POPULATION?

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Background: Population specific cut offs of titers of Rheumatoid Factor (RF) in diagnosis of Rheumatoid arthritis (RA) and the role of anti citrullinated peptide antibodies (ACPA) remains unknown.

Objectives: To define cut offs for RF titres in diagnosis of RA in Indian population

Methods: RF titers of consecutive adult RA patients fulfilling ACR criteria as well as ACPA positive criteria were compared with healthy normal and diseased non RA controls encountered in the rheumatology OPD of a tertiary care armed forces hospital using ROC-AUC analysis. Reclassification of disease phenotype as seropositive and seronegative RA using various the cutoffs was looked into and corresponding Anti-CCP titers in the subset of patients with RA was analysed.

Results: Overall 675 cases of RA (range: 18–69 years; 29.9% Females) were compared with age and sex matched 192 non RA and 51 controls. Mean (+SE) RF titers in RA cases was 107.7 IU/L (+- 6.17) while that in non RA disease cases was 29.3 IU/L (+- 6.08) and normal healthy controls 14.7 IU/L(0.43). ROC analysis revealed a cutoff titer of 20.3 IU/L (AUC 0.705 (95% CI:0.66–0.74)) with the best combination of sensitivity and specificity for a diagnosis of RA from non RA and healthy controls. With the currently used cut offs of 60 IU/L in our centre as well as high titre RF as per ACPA criteria, subjects were seropositive in 286/589 (48.5%) cases. Cutoffs of 40 IU/L and 20 IU/L led to a label of seropositivity in 322 (54.7%) and 396 (67.2%) cases respectively. Simultaneous Anti-CCP was done in 480 (81.4%) cases: 363 (75.6%) of these were positive. Using a cutoff of 60 IU/L as seropositive RA, anti CCP positivity was noted in 246/286 (86%) cases while with a cutoff of 40 IU/L and 20 IU/L it was 278/322 (86.3%) and 334/396 (84.3%) respectively. The RF titers in 117 anti-CCP negative cases was >20,40 and >60 IU/L in 62 (52.9%), 44 (37.6%) and 40 (34.1%) cases respectively.

Conclusions: For this cohort of Indian population, a cut off of 20 IU/L of RF titers has the best performance for a diagnosis of RA with an additional 18.7% cases labelled as seropositive as against the current ACR cutoffs. Anti CCP positivity also no substantially changed by using this lower cutoff. There is a need to reevaluate the population specific RF titers in conjunction with anti- CCP in Indian population.

Disclosure of Interest: None declared