

A Cross-Sectional Study on the Frequency of Foot Complaints and How They Relate to the Disease Activity in Rheumatoid Arthritis

Abstract

Aim

Foot and ankle joints are among the joints estimated in Rheumatoid Arthritis (RA), but not for the computation of Disease Activity Score- 28 (DAS28). The end of the study is to estimate the frequency of bottom complaints in RA cases and to probe the relationship between DAS28 and bottom complaints and functional statuses.

Methods

DAS28 (with Erythrocyte Sedimentation Rate), Health Assessment Questionnaire (HAQ), bottom Function indicator (FFI), bottom Function Index Pain subscale (FPI), bottom Function Index Deficiency subscale (FDI), bottom Function indicator Limitation subscale (FLI), 6- cadence (mt) walking time, Visual Analog Scale (VAS) are used to probe the relationship between DAS28 and other indicator and scales.

Results

103 cases with RA are included in the study. 91.3 of the cases are womanish and 8.7 are manly. 66 of the cases have bottom and ankle complaints and 34 have no complaints. It's observed that DAS28 is identified appreciatively with VAS independently. In addition, it's observed that FFI is identified appreciatively with duration of complaint ($p = 0.015$, $r = 0.226$), body mass indicator ($p = 0.002$, $r = 0.292$), VAS ($p = 0.001$, $r = 0.639$), HAQ ($p = 0.001$, $r = 0.376$), 6 mt walking time ($p = 0.001$, $r = 0.551$) and the Erythrocyte Sedimentation Rate ($p = 0.001$, $r = 0.247$).

Conclusion

Bottom complaints in cases with RA are seen at high rates. Despite the extent of the problem, the rheumatoid bottom is neglected. Cases with bottom complaints are more likely to have advanced seditious situations and have further functional limitations. The DAS28 score can also be used for follow-up in cases with bottom complaints. In addition, bottom complaints must be questioned and clinical and functional follow-up should be done. FFI and subscores can be used in assessing and following bottom complaints in cases with RA.

Keywords: DAS28 • Bottom function indicator • Rheumatoid arthritis • Foot pain index

Introduction

Rheumatoid Arthritis (RA), signs and symptoms of the bases are common. Further than 90 of RA cases complain of bottom or ankle problems for a while in the course of the complaint. The maturity of RA cases presents arthritis of the bases and 20 of them have

radiographic damage at the time of opinion (2). It's stated that bottom involvement is neglected in RA, and studies on complaint exertion and bottom involvement are demanded. The ultimate treatment pretensions in RA are to relieve pain, decelerate the progression of common destruction and achieve absolution.

Espen A. Haavardsholm*

Department of Health Management and Health Economics, Faculty of Medicine, University of Oslo, Norway

*Author for Correspondence:

Haavardsholm@espen.com

Received: 01-June-2023, Manuscript No. FMIJCR-23-103600; **Editor assigned:** 03-June-2023, Pre-QC No. FMIJCR-23-103600 (PQ); **Reviewed:** 17-June-2023, QC No. FMIJCR-23-103600; **Revised:** 23-June-2023, Manuscript No. FMIJCR-23-103600 (R); **Published:** 30-June-2023, **DOI:** 10.37532/1758-4272.2023.18(6).154-156

Monitoring complaint exertion is important for complaint monitoring and strict control. DAS28 is a valid and common tool for measuring and assessing complaint exertion. According to the American College of Rheumatology (ACR), bottom and ankle joints are set up within the joints estimated in the RA bracket criteria (7). But DAS28 isn't included in the bottom and ankle joints. This situation led to the discussion of the fact that both the factual exertion account could be deceiving and that the joints could be neglected when assessing the cases [1-4].

Methods

We performed a face to face cross-sectional experimental study. 103 successive RA cases of the inpatient. They've to meet the 1987 or 2010 ACR criteria for RA. Cases with a good internal capacity above the age of 18 are included. Cases that passed surgery for the lower extremity for any reason are barred from the study. The original ethical commission approved this study and a written informed concurrence is attained from each case. The following demographic and clinical variables are collected age, coitus, complaint duration, and painful or blown joints in the bottom. Body Mass Index (BMI) was is calculated. All cases' shoes and socks are removed and bottom examinations are performed. On physical examination, the number and distribution of blown, tender joints are recorded. DAS28 is calculated with sedimentation rate for complaint exertion assessment complaint exertion was expressed as a compound indicator conforming of a blown and painful common count of 28 joints, the Erythrocyte Sedimentation Rate (ESR in mm/ hour) and a visual analogue scale (VAS) for general health. Function was measured by the following variables Health Assessment Questionnaire (HAQ), 5- bottom Function indicator (5- FFI), 6 cadence walking test, Visual Analog Scale (VAS). The HAQ has been developed by Feasts et al. And was acclimated for the Turkish population. The questionnaire consists of eight orders, which represent the conditioning of diurnal living, and for each order, there are two to four questions. The responses are scored on a fourpoint scale 0; without difficulty, 1 with some difficulty, 2; with difficulty and 3; insolvable. The questionnaire has a final column in which repliers can indicate the use of any aid or device. The use of any of this bias is scored by at least. The loftiest score for each of the eight orders is taken as the score for that order. The final score of the questionnaire is the average score of all the orders and ranges between 0 and 3.

Cases with bottom complaints were are also asked to

answer a aggregate of 23 questions; assessing 9 bottom pain, 9 inadequacy and 5 limitations for calculating the bottom Function indicator. Foot Pain Index, Foot Insufficiency Index, Foot Activity Index, and bottom Function indicator are calculated [5-8].

The FFI measures pain and mobility limitation as an impact of bottom problems. The scale consists of 23 particulars divided into 3 subscales pain (9 particulars), physical functioning (9 particulars) and limitation (5 particulars) (16). The particulars are rated on a 5 point- scale, which is a revision by Kuyvenhoven et al. (The original FFI uses VAS scales.). To calculate the subscale- scores and the total score, the item scores are added up, divided by the maximum possible sum of the item scores and also multiplied by 100. The scores range from 0 to 100; the advanced the score, the further pain, disability and limitation, independently. Although it was first applied in cases with RA, its use isn't limited to this population and its validity and trustability in non-systemic bottom and ankle problems are reported. It was espoused for Turkish population. In the study cases are asked to walk a distance of 6 measures marked on the flat ground. This time is measured in seconds with a sandglass.

Statistical analysis

The association between the signs, symptoms, damage, and function parameters are calculated using Pearson's correlation. For the data analysis, we used the Statistical Package for the Social lores (SPSS22.0). P values are taken as 0.05 in all statistics.

Results

The characteristics of the cases are shown in Table 1. 103 cases were analysed; 94 women and 9 men. The mean age of 103 RA cases included in the study is 55.8 ± 12.6 times (median 56 times, 23- 80 times. 91.3 (n = 94) of the cases are womanish and 8.7 (n = 9) are manly. 94 womanish and 9 manly cases were are included in the study and the rate of womanish cases with further than 10 crowds is advanced than the average womanish/ manly rate which is accepted as 3 in the literature. Within the compass of the study, women aren't particularly preferred among the cases who applied to the inpatient clinic and the study is mentioned to the cases who applied in turn [9,10].

Discussion

The end of the present study is to assess the relationship between complaint duration and bottom function, pain and disability in cases with RA- related bottom

complaints. In our study, 66 of 103 RA cases have bottom complaints. This rate is harmonious with the 60- 90 of the literature (14- 17). In an epidemiological study of 585 RA cases in England, 93.5 of the actors reported that they had bottom pain. But the pain in the bottom wasn't estimated by FFI or any accepted scale. The diurnal routine and last one month are questioned as pain/ absent. In this epidemiological study, the pain of womanish actors is set up to be more severe and it's suggested that this could be related to the use of shoes. It's also associated with BMI and duration of complaint with bottom pain. The number of manly cases included in our study is veritably small (8.7), so we couldn't note on the gender difference. In our study, a significant relationship is set up between FFI and BMI and complaint duration.

Questioned the validity of the cut- off point for absolution with DAS28, substantially because the bases ankles aren't estimated. Reported that residual complaint exertion was constantly observed in ankle and bottom joints in cases with absolution according to DAS28. Still, recent reports suggest that DAS28 is statistically

significantly identified with the Disease Activity Index, including metatarsophalangeals (MTF) or ankle joints. Joints and ankles, bottom MTF joints, including 32 common conditioning comparing complaint exertions, concluded that the frequency of absolution didn't change.

Conclusion

Bottom complaints in cases with RA are seen at high rates. Despite the extent of the problem, the rheumatoid bottom is neglected. Cases with bottom complaints are more likely to have advanced seditious situations and have further functional limitations. The DAS28 score can also be used for follow- up in cases with bottom complaints. In addition, bottom complaints must be questioned and clinical and functional follow- up should be done. FFI and subscores can be used in assessing and following bottom complaints in cases with RA.

Conflict of Interest

None

Acknowledgment

None

References

1. Uitterlinden EJ, Jahr H, Koevoet JL *et al.* Glucosamine reduces anabolic as well as catabolic processes in bovine chondrocytes cultured in alginate. *Osteoarthritis Cartilage* 15, 1267-74 (2007).
2. Jerosch J Effects of Glucosamine and Chondroitin Sulfate on Cartilage Metabolism in OA, Outlook on Other Nutrient Partners Especially Omega-3 Fatty Acids. *Int J Rheumatol.* 969012 (2011).
3. Taniguchi S, Ryu J, Seki M *et al.* Long-term oral administration of glucosamine or chondroitin sulfate reduces destruction of cartilage and up-regulation of MMP-3 mRNA in a model of spontaneous osteoarthritis in Hartley guinea pigs. *J Orthop Res* 30, 673-678 (2012).
4. Imagawa K, de Andrés MC, Hashimoto K *et al.* The epigenetic effect of glucosamine and a nuclear factor-kappa B (NF-kB) inhibitor on primary human chondrocytes-implications for osteoarthritis. *Biochem Biophys Res Commun* 405, 362-7 (2011).
5. Jones IA, Togashi R, Wilson ML *et al.* Intra-articular treatment options for knee osteoarthritis. *Nat Rev Rheumatol* 15, 77-90 (2019).
6. Reginster J-Y, Bruyere O, Neuprez A *et al.* Current role of glucosamine in the treatment of osteoarthritis. *Rheumatology* 46, 731-735 (2007).
7. Leffler CT, Philippi AF, Leffler SG *et al.* Glucosamine, chondroitin, and manganese ascorbate for degenerative joint disease of the knee or low back, a randomized, double-blind, placebo-controlled pilot study. *Mil Med* 164, 85-91 (1999).
8. Reginster JY, Neuprez A, Lecart MP *et al.* Role of glucosamine in the treatment for osteoarthritis. *Rheumatol Int* 32, 2959-2967 (2012).
9. Houpt JB, McMillan R, Wein C *et al.* Effect of glucosamine hydrochloride in the treatment of pain of osteoarthritis of the knee. *J Rheumatol.* 26, 2423-30 (1999).
10. Scholtissen S, Bruyère O, Neuprez A *et al.* Glucosamine sulphate in the treatment of knee osteoarthritis, cost-effectiveness comparison with paracetamol. *Int J Clin Pract* 64, 756-62 (2010).