An audit for the screening of osteoporosis in RA patients and whether or not they have been started on treatment

No.20A108

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INTRODUCTION

Osteoporosis and bone fracture are a major cause of morbidity in patients with rheumatoid arthritis (RA). Juxta-articular osteopenia and generalized bone loss occur early in RA and there is 2 fold increased risk of both hip fracture and symptomatic vertebral fractures in patients with established RA compared to the general population. Osteoprotic fractures are associated with disability, mortality and major financial and social impact. This leads to a significant decline in quality of life. The causes of osteoporosis associated with RA are multifactorial including the chronicity of the inflammation in RA, the treatment effects namely the use of glucocorticoids and the lifestyle of the RA patients (for example lack of exercise).

Aim

To audit the screening of osteoporosis in RA patients and to assess if patients had been started on treatment or not.

STANDARD

As per the Irish osteoporosis society and NICE guidelines , all women over 65 and men over 75 years old should have their bone mineral density (BMD) checked ideally by DXA scan. However, If a person has one or more risk factors for Osteoporosis, regardless of age, male or female, a DXA scan should be considered. Since it is a silent disease, there are no signs or symptoms prior to fractures.
Most people are re-scanned every 2 years, however in certain cases, if compliance is an issue, a scan could be done after 12 to 18 months to help increase compliance
Vitamin D is an essential part of the prevention and treatment of osteoporosis, particularly in the elderly population, as it helps to regulate cell growth and the immune system, and it is essential for the absorption of calcium by increasing the body's ability to absorb calcium by 30-80%

METHODOLOGY

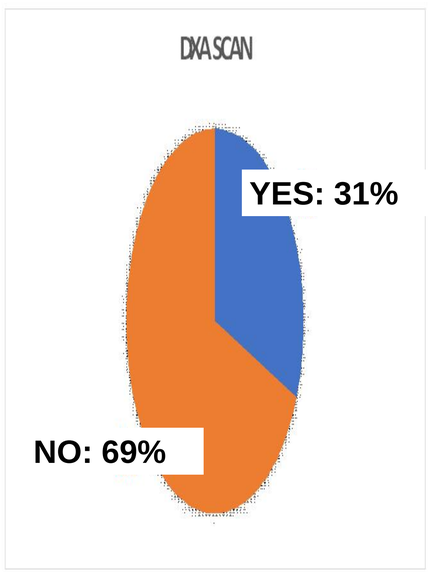
105 patients attended the rheumatology clinic with a diagnosis of RA were included, in one month period from 24/02/2020 to 24/03/2020. We evaluated the following: their bone mineral density (BMD) using bone densitometry scan (DEXA) in the past 2 years, their Vitamin D check in the previous 1 year , the use of anti-osteoporotic treatment for these patients.

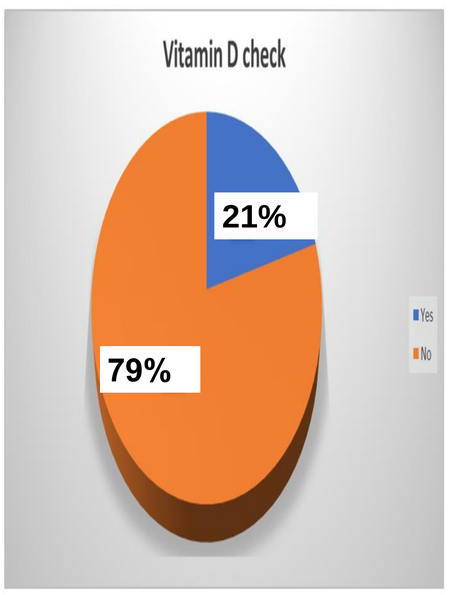
RESULTS

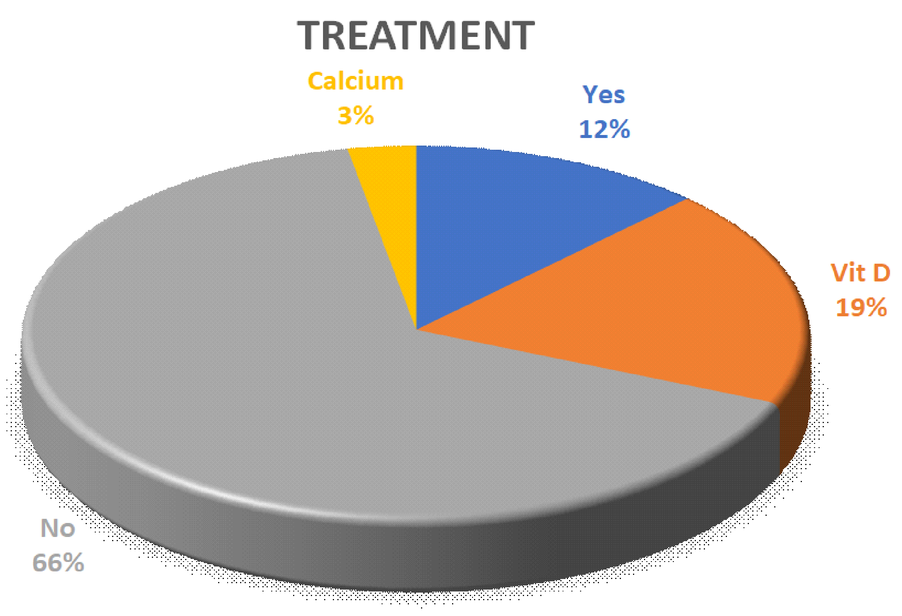
From 105 patients, 82 patient (78%) were 50 years old or older while only 23 patients (22%) were younger than 50, with 28 years old being the youngest. Looking to the gender 74 (70%) were females and 31 (30%) were males. As regards the duration of the RA: 39 patient (37%) have the disease for less than 5 years, whereas 49 patient (47%) have it for 5-10 years and only 16% had RA for more than 10 years.

With regards to the other contributory factors: firstly 29 patients (28%) used steroids in the last year from whom 13 patient (12%) used 5 mg or more while 75 patients (72%) did not use steroids. As regards smoking status, 18 patients(17%) were smokers, 11(11%) were ex-smokers, 37(35%) were non-smokers and 39(37%) were not recorded in the system. Finally, as regards BMI status, only 6 patients (6%) were under-weight , 75 patient (71%) were having average BMI, 10 patients have high BMI and 14 patients (13%) do not have their BMI recorded.

Coming to the screening of osteoporosis , DXA scan was done in the last 2 years for 31% (33 patient) while 69% (72 patient) did not have DXA scan over the same period.
Vitamin D check had been measured in only 22 patients (21%).
Lastly, the treatment of osteoporosis has been given to 13 patient(12%) while 20 and 3 patients are taking vitamin D and calcium supplements respectively whereas 69 patient (66%) are not on any treatment.







CONCLUSION

The results of this audit suggest that our compliance in following the osteoporosis guidelines for the screening and treatment in our patients who have RA is inadequate and that we have to pay more attention especially in the presence of other risk factors. Whether this is because of lack of the documentation or actual screening and starting the proper treatment this remains unclear.

RECOMMENDATION

-The quality of screening and treating osteoporosis in RA patients should improve in our department as this will improve the overall life style of our patients and hence the burden on the system.
-To consider several options to bring about this change, this might include direct education to the staff , production of a set of local guidelines and standards for the management of all patients who are prone to have osteoporosis, production of a proforma that includes documentation of the screening and treatment options, Small stickers on the clinics' folders to remind the staff about the importance of osteoporosis screening and treatment , the other option for this might be a pop-up reminder message on opening the charts in the EPR.
-To assess the impact of all this we also suggest repeating the audit in 3-6 monthly intervals.