evaluation and low vitamin D is often the underlying cause. Both clinical and sub-clinical low level vitamin D is common.¹

Objectives: To assess the relationship between musculoskeletal complaints and serum vitamin D₃(cholecalciferol) level.

Methods: This prospective cross-sectional descriptive study was conducted during July 2017 to December 2017 in Chittagong, Bangladesh. Patients with common musculoskeletal complaints were enrolled. Each patient was screened to exclude common possibilities. Serum cholecalciferol was measured for each patient. Race, occupation, skin complexion, body mass index, sunlight exposure, covering of body with clothing's and use of sunscreen were taken under consideration in final analysis. Visual analogue scale (VAS; 1–10) was used to quantify all complaints. Correlation of serum cholecalciferol level with VAS score of individual complaints was analysed.

Results: A total of 110 patients (79 Female and 31 Male) were enrolled after screening 165. All of them were Bangladeshi of multi-ethnic Asian origin. Mean age was 46.5±12.8 years. Their skin complexions were pale white to white skin 45.5%, light brown 30%, moderate brown 11.8% and dark brown 12.7%. Most had (90.9%; n=100) inadequate sunlight exposure and 77.2% (n=61) women used Burka (full covered dress). Mean vitamin D₃ level was 25.2±7.3 ng/ml. Vitamin D deficiency was (mean 17.3±2.8 ng/ml) observed in 30 (27.3%), insufficiency (mean 25.1±2.7 ng/ml) in 62 (56.4%) and normal level (mean 34.8±4.4 ng/ml) in 18 (16.4%). After classifying Vitamin D level in relation to symptoms it was found that majority of patients (81.2% to 90.3%; depending on complaints) had insufficient or deficient cholecalciferol level (table 1).

Abstract AB1075 – Table 1. Serum cholecalciferol status in different musculoskeletal complaints

Complaints Vit D ₃	Normal (≥30 ng/ml)		Insufficiency (20-<30 ng/ml)		Deficiency (<20 ng/ml)	
	n	%	n	%	n	%
Myalgia (n=104; 94.5%)	16	15.4	60	57.7	28	26.9
Muscle cramp (n=104; 94.5%)	18	17.3	60	57.7	26	25.0
Generalised weakness (n=99; 90.0%)	18	18.2	56	56.5	25	25.2
Difficulty in climbing stairs (n=89;80.9%)	14	15.7	50	56.2	25	28.1
Fatigue (n=87; 79.1%)	13	8.1	51	58.6	23	26.4
Difficulty in squatting (n=84; 76.4%)	9	10.7	49	58.3	26	30.9
Pain in weight bearing joints (n=80; 72.7%)	11	3.7	49	61.2	20	25.0
Bone pain (n=73; 66.4%)	8	10.9	43	58.9	22	30.1

Significant negative correlation was found between the serum cholecalciferol level and VAS for difficulty in getting up from squatting position ($r=-0.253$, $p=0.008$) and positive correlation was found for muscle cramps ($r=0.220$, $p=0.021$). Correlations with remaining symptoms were not statistically significant.

Conclusions: Vitamin D status directly and indirectly influences musculoskeletal health. Hypovitaminosis D should consider in every patient with muscle cramp.

REFERENCE:

- [1] Jones AN, Hansen KE. Recognizing the musculoskeletal manifestations of vitamin D deficiency. *J Musculoskelet Med.* 2009; 26(10): 389 – 96.

Acknowledgements: Hafsa habiba, Rayhana Begum

Disclosure of Interest: M. A. Razzaque Consultant for: research, G. Dewan Consultant for: research, R. biswas Consultant for: research, M. karim Consultant for: research, I. sultan Consultant for: research

DOI: 10.1136/annrheumdis-2018-eular.6070

AB1076 COMPLEX REGIONAL PAIN SYNDROME TYPE 1: WHICH TREATMENT?

M. Sghir¹, S. Salah², A. Haj Salah¹, W. Kessomtini¹, Z. Ben Salah². ¹ Rehabilitation department, University Hospital Tahar Star, Mahdia; ² Rehabilitation department, University Hospital Fattouma Bourguiba, Monastir, Tunisia

Background: The treatment of Complex Regional Pain Syndrome Type 1 (CRPS-I) is multidisciplinary.¹ It aims to minimise symptoms, pain, preserve functional ability and professional activity. Unfortunately, therapeutic possibilities are still very limited and there is no Gold standard.

Objectives: The purpose of our work is to evaluate the efficiency of four therapeutic modalities in the management of CRPS-I.

Methods: Retrospective study of 60 patients (21 men and 39 women) treated for CRPS-I. Four groups were identified according to therapeutic modalities used: rehabilitation alone (16 patients), Calcitonin associated with rehabilitation (15 patients), Bisphosphonates (BP) (Sodium Risedronate, 1 tablet per week, over an average duration of 1 month) associated with rehabilitation (20 patients) and Calcitonin in combination with BP and rehabilitation (9 patients).

Results: The mean age of the patients was 51±16.5 years. The average time of treatment was 2 months and the average duration of follow-ups was 7 months. Traumatic origin was found in 88.3% of cases. Distal radius fractures (DRF) were the most incriminated (40% of cases). The evolution was judged on pain reduction, vasomotor signs and on functional improvement.

For all etiologies combined, no statistically significant difference was found between the different groups ($p=0.462$).

For patients with a DRF, a favourable outcome was noted in the BP group associated with rehabilitation in 85.7% of cases while it was only 42.9% for rehabilitation alone.

Conclusions: Our study concludes that the different therapeutic modalities evaluated for the treatment of CRPS-I had an efficiency close to each other with a superiority of BP. Oral Sodium Risedronate could therefore be proposed as a treatment for CRPS-I without marketing authorisation (MA).

REFERENCE:

- [1] Hernández-Porras BC, Plancarte-Sánchez R, Alarcón-Barrios S, Sámano-García M. Complex regional pain syndrome: A review. *Cirugía y Cirujanos* (English Edition). 1 juill 2017;85(4):366–74.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7477

AB1077 INVESTIGATION OF FRAILTY, MOBILITY AND DAILY LIFE ACTIVITY IN ELDERLY

U.K. Sahin, A. Demircioglu, N. Kirdi. *Physical Therapy and Rehabilitation, Hacettepe University, ANKARA, Turkey*

Background: There are many factors that affect negatively mobility and daily life activity of older people. Frailty is one of these. frailty is a state of decline in physiologic reserve capacity and resiliency due to impairment in multiple physiological systems, thereby causing vulnerability to death and adverse health outcomes.

Objectives: The aim of this study was to analyse gender differences in frailty, mobility and daily life activity score.

Methods: The study included 173 women, 124 men total 197 persons aged 65 years and older. The demographic information including age, height and weight, the individuals marital status, educational state, chronic diseases were taken. Elderly Mobility Scale (EMS), Edmonton Frail Scale (EFS) and KATZ were used to evaluate mobility, frailty and daily life activities level, respectively. Individuals were divided into groups according to their gender.

Results: There was significant difference between women and men in EMS ($p=0.001$), EFS ($p<0.001$) and KATZ scores (0.048). Frailty score were lower, mobility score and daily life activity score higher than women in men. In both men and women were found positively a relation between mobility and daily life activity ($p<0.001$), were found negatively a relation between frailty and mobility, daily life activity ($p<0.001$).

Conclusions: It was seen that female gender affected mobility, frailty and daily life activity. It is important that Strategies for preventing or delaying the predisposing factor of frailty need to address gender differences and determinants among women.

REFERENCES:

- [1] Fried, L.P., Ferrucci, L., Darer, J., Williamson, J.D., & Anderson, G. (2004). Untangling the concepts of disability, frailty, and co-morbidity: Implications for improved targeting and care. *Journal of Gerontology, Series A: Biological Sciences and Medical Sciences*, 59(3), 255–63.
- [2] Alexandre, Tiago da S., et al. "Gender differences in the incidence and determinants of components of the frailty phenotype among older adults: findings from the SABC study." *Journal of aging and health* 30.2 (2018): 190–212.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7029