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AB0917 PATTERN OF SERUM CHOLECALCIFEROL (VITAMIN D3) LEVEL AMONG THE FEMALE IN RELATION TO CLOTHING'S

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Background: Both clinical and subclinical low level vitamin D is common¹. Various kinds of health hazard including musculoskeletal symptoms are frequently seen among the Vitamin D deficient. It is also not uncommon even in a sunny country. Lack of sun exposure, particularly female using veil may be an important cause.

Objectives: To assess the relationship between using veil and serum vitamin D₃ (cholecalciferol) level

Methods: This prospective cross-sectional descriptive study was conducted during July 2017 to June 2018. Patients with common complaints related to lack of Vitamin D (muscle cramp, myalgia, fatigue, bone pain, generalized weakness, difficulty in getting up, climbing stairs and pain in weight bearing joints) were enrolled. Patient having other disease were excluded from study. Serum cholecalciferol was measured for each patient. Race, occupation, educational status, skin complexion, body mass index, sunlight exposure, covering of body with clothing's and use of sunscreen were taken under consideration in final analysis. Correlation of serum cholecalciferol level with different types of veils (Burkha, halve sleeve, full sleeve, quarter sleeve and Hijab) of individual's was analyzed.

Results: A total 79 female patients were enrolled after screening 108. All of them were of multi-ethnic Asian origin. Age distribution of them is 17 to 39 years 34.2%, 40 to 50 years 38%, 51 to 70 years 26.6% and above 70 years 1.3%. Maximum (93.7%) of them were house wife, 91.1% had no adequate sun exposure and 81% had no skin exposure to sunlight. Among clothing 79.7% used Burkha, 5.1% halve sleeve, 2.5% full sleeve and 12.7% quarter sleeve. Among Burkha 28.6% (18), 55.6% (35) & 15.9% (10) and among quarter sleeve 50% (5), 40% (4) & 10% (1) had deficient, insufficient & sufficient vitamin D level respectively while 2 (100%) female with full sleeve and 4 (100%) female with halve sleeve had deficient and insufficient vitamin D level respectively. The cholecalciferol level among the users of veil is shown in Table-1. There was no significant difference between different types of clothing's (Table: 2).

Abstract AB0917 Table 1. Weight, height and Vitamin D level in different types of clothing's.

Type of clothing		Wt in Kg	Ht in cm	Vit D level (range) in ng/ml
Burkha	Mean	68.63	150.43	(8-40) 23.921
	N	63	63	63
	Std. Deviation	11.706	6.574	6.3074
Halve sleeve	Mean	70.75	150.50	(25-30) 27.000
	N	4	4	4
	Std. Deviation	17.500	1.000	2.4495
Full sleeve	Mean	64.00	145.50	(15-19) 17.000
	N	2	2	2
	Std. Deviation	8.485	13.435	2.8284
Quarter sleeve	Mean	63.40	150.10	(16-38) 23.350
	N	10	10	10
	Std. Deviation	10.834	6.437	6.7497
Total	Mean	67.96	150.27	(8-40) 23.829
	N	79	79	79
	Std. Deviation	11.790	6.488	6.2418

Abstract AB0917 Table 2. Difference of Vitamin D level in relation to clothing's (ANOVA)

Gender		Sum of Squares	df	Mean Square	F	P value
Female	Between Groups	136.315	3	45.438	1.174	0.325
	Within Groups	2902.568	75	38.701		
	Total	3038.883	78			

Conclusion: Main source of Vitamin D is sunlight. Proper exposure to sunlight is essential for adequate vitamin D level even in a sunny country. Regarding in vitamin D absorption from sunlight, there may be no difference between Burkha and other covered dressings. Further study needed to have a conclusion.

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AB0918 CERVICAL INSTABILITY AND VISUAL PATHWAYS COMPROMISE IN PATIENTS WITH JOINT LAXITY

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Background: Cervical spine stability is to a great extent dependent on the capsular ligaments, laxity of which would lead to extensive movements of the vertebrae. This instability of the cervical spine, particularly in the upper segments (C0-C2) would be a major source of vertebrobasilar insufficiency. The resultant brain posterior circulation compromise would then make the foundation of white matter changes and cause many neurological signs and symptoms. Occipital lobe and visual pathways are certainly in danger in these circumstances. How and to what extent could the visual pathways be involved in patients with joint laxity is not well studied yet.

Objectives: This study was designed to find whether the visual evoked potential parameters (latency and amplitude) of the patients with generalized joint laxity differs from that of the normal population.

Methods: In this cross-sectional comparative study, 90 consecutive patients with generalized lax joints and 90 normal individuals were enrolled and underwent the visual evoked potential test by pattern reversal. The latency and amplitude of P100 were determined for all the participants and data from the 2 groups were compared statistically.

Results: The results demonstrated that although none of the VEP parameters fell in the abnormal range, there was significant difference between P100 latency in patients with generalized lax joints (mean:110.23 ms) versus normal population (100.18 ms) ($P < 0.001$) with longer latency in patients with generalized lax joints. But the amplitude was not significantly differed across the groups ($P > 0.05$).

Conclusion: It can be concluded from this study that although the VEP parameters of the patients with generalized joint laxity don't exceed the normal range limits, P100 latency in these patients is significantly more prolonged than in normal population. This finding is valuable from two points of view, first P100 latency at the verge of abnormality (upper limit of normal range) in these patients is a warning sign implying the visual pathway involvement, and second VEP could be invaluable in differentiating the signs and symptoms that are produced by vertebrobasilar insufficiency secondary to the joint laxity from multiple sclerosis, which can be mimicked both clinically and in MRI findings by many vascular problems but shows a great percent of VEP abnormality as a particular feature.

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