

difference on vitamin D serum levels between patients previously treated or not treated with chemotherapy (17.8 ± 7.8 vs 19.3 ± 9.7 $p=0.6$). After subdivision of patients that referred hand arthralgia according to the different type of AIs used: 22% have been treated with tamoxifen, 30%, anastrozole and 48% letrozole. Therefore, the baseline serum vitamin D concentrations did not significantly predict arthralgia in the overall group ($P = 0.70$) or separately in the single AIs group (anastrozole ($P = 0.60$) or tamoxifene ($P=0.30$) or letrozole ($P = 0.60$, respectively).

Conclusion: Vitamin D serum concentrations in women treated with AIs are at lowest ranges in the majority of the patients analysed, but no apparent interference with musculoskeletal symptoms was found related to the different concentrations; the cause of arthralgia might be better related to estrogen deficiency induced by AIs their self.

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AB0915

ЭФФЕКТИВНОСТЬ АКУПНКТУРЫ ПРИ ТЕРАПЕВТИЧЕСКИХ УПРАЖНЕНИЯХ ПРИ ЛЕЧЕНИИ МИОФАСЦИАЛЬНОЙ БОЛИ В НИЖНЕЙ ЧАСТИ СПИНЫ

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Background: Myofascial pain syndrome in the lower back is one of the most common diseases. At the current time, there are no ideal ways to treat this disease. Pharmacological treatments are not suitable for many patients. Regular use of painkillers and NSAIDs is associated with the risk of serious adverse reactions in patients. Using only pharmacotherapy without using non-pharmacological treatment methods is not a rational approach to treating such patients.

Acupuncture has a wide range of effective methods of combating combat syndrome that can have a quick positive effect, and, unlike drugs, this method remains safe. Therapeutic exercise is a treatment method that is able to raise the general threshold of pain sensitivity by including non-specific adaptation mechanisms [1]. This effect develops slowly, but it acts for a very long time.

Objectives: The purpose of this study is to compare the effectiveness of acupuncture with massage in the treatment of myofascial pain in the lower back with complex treatment, including exercise.

Methods: A prospective clinical study was conducted with patients suffering from myofascial pain syndrome in the lower back, which were randomly divided into one of two groups: patients (60 cases) who received combined treatment including massage, acupuncture and exercise therapy, and patients (30 cases) of group 2 (G2) who received only massage procedures and acupuncture without medical gymnastics. They were assigned to group 1 (G1). The age composition of the G1 group of patients from 31 to 70 years. Gender composition - 22 (37%) - women, and 38 (63%) - men.

All patients received treatment 5 times a week (from Monday to Friday, excluding Saturday and Sunday), the total duration of the rehabilitation course is 10 days. The therapeutic program included the following non-drug methods of exposure: for G1, 30 minutes - an acupuncture session, 20 minutes a back massage session, and at least 45 minutes of exercises in the gymnastics hall with an instructor in physical therapy. G2 patients received similar non-drug therapy with the exception of classes in the gymnastics room. The visual-analogue scale (VAS) was used as a method of performance evaluation, which was evaluated at the beginning of the study, at the fifth, ninth and last visit to the clinic.

Results: The average time between the onset of clinical symptoms and the first day of treatment was 34.6 days. In 80% of patients, a history of pain lasted for more than 3 months. 89 patients (98%) completed the protocol: 60 (100%) in G1 and 29 (97%) in G2. The average VAS score in G1 was 6.9 at the beginning of the study and after the tenth session it dropped to 2, 6. A significant decrease in pain was registered in the G2 group (from 6.9 at the beginning of the study to 3.3 after the tenth session). A statistically significant difference ($p < 0.05$) between different sessions was noted.

In order to assess the period of time during which the effect of treatment is maintained, all patients were asked to send a subjective assessment on the VAS scale to the attending physician after completion of treatment monthly for 12 months. When analyzing these data, it was established

that the inclusion of physiotherapy exercises preserves a clear effect of therapy for 3.1 months longer than without the use of therapeutic gymnastics.

Conclusion: The results indicate high efficiency acupuncture in the treatment of myofascial pain syndrome, however, its combination with therapeutic exercises allows to better consolidate the effect and contributes to a longer remission of pain syndrome. It is necessary to establish clear criteria for inclusion in the treatment of exercise

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AB0916

INVESTIGATION OF PAIN AND DEPRESSION IN CANCER OUTPATIENTS RECEIVING CHEMOTHERAPY

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Background: Cancer treatments such as chemotherapy contribute to the development of depression and pain (1). Prevalence of pain ranges from 14% to 100% and depressed symptoms occur 1-42% in cancer patients (2). The empirical evidence indicates that pain is often untreated and may induce depression in cancer patients (1,2) and depression affects the management of symptoms such as pain (3). Therefore, depression and pain have interrelated effects with each other. Pain and depression in cancer patients lead to discontinuation of therapy, difficulties in controlling symptoms and negative treatment compliance (4). Studies report the need for more research on pain and depression associated with cancer treatment (2).

Objectives: The objectives of this study are to: 1) compare the depression levels of painful and painless cancer patients who received outpatient chemotherapy; and 2) investigate the relationship between pain and depression in these patients.

Methods: This study was carried out in outpatient chemotherapy unit of Hacettepe Oncology Hospital based in Ankara, the capital city of Turkey. The visual analog scale (VAS) was used to investigate if the patients may have had pain. The Brief Pain Inventory (BPI) was of help to assess the pain severity and pain interference on the function of patients while the Beck Depression Inventory (BDI) was applied to evaluate depression.

Results: The study findings are based on the outcomes of 27 cancer outpatients receiving chemotherapy. Their mean age was 56.89 ± 11.08 years (age range; 31–73). Almost half of the of patients had pain (48.15%). There was a difference between the depression scores of the patients who had pain and the other patients without pain but this is not statistically significant ($p=0.07$). The depression scores of painful patients and non-painful patients were 13 and 6, respectively. There was a moderate association between scores of pain severity and depression ($r=0.4$, $p=0.04$). Moreover, there was a high association between the score of depression and pain interference on function ($r=0.61$, $p=.016$).

Conclusion: This study shows that pain is related with depression in cancer outpatients receiving chemotherapy. Depression may occur more frequently in patients who have experienced pain than in patients with no pain and also depression is likely to increase pain in cancer patients. Therefore, the addition of emotional and psychosocial components for treatment procedures and effective pain management may have positive effects on the treatment of cancer outpatients receiving chemotherapy.

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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 vertebral 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 vertebral 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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