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# THE RELATIONSHIPS BETWEEN VITAMIN D AND PROSTATE CANCER

6. Bone metabolism, osteoporosis

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# **BACKGROUNDS**

It has been shown that Vitamin D is not only found in skeletal system and also in other organs and tissues including intestinal cells, colon enterocytes, prostate, placenta, breast, ovary, pituitary gland, pancreas, skin fibroblasts and keratinocytes, etc. Vitamin D insufficiency has been found to be associated with a variety of cancers including prostate.

# **OBJECTIVE**

To investigate the relationships between vitamin D levels and prostate cancer and compare vitamin D levels in patients with prostate cancer, prostatitis and benign prostate hyperplasia(BPH).

One hundred forty two patients, who were admitted to the Outpatient Clinics of Urology Department of Cerrahpasa Medical Faculty between 2013 - 2014, were included in our study. Group 1 (prostate cancer, n= 62), group 2 ( prostatitis, n=38), group 3 (BPH, n=40). Serum PTH and Prostate specific antigen levels were determined by electrochemiluminescence immunoassay on the Roche Modular immunoassay analyzers. 25-OH Vitamin D3 levels were measured by chemiluminescence immunoassay using Liason analyzer. Serum calcium, phosphor, total protein and albumin levels were measured by colorimetric method. Statistical analyses were performed using SPSS 11.0 version for Windows Statistical Program . All data were expressed as means, standard deviation (SD).

Vitamin D levels were significantly lower in prostate cancer compared to group 3 (p<0.05). Prostate cancer patients were divided into 3 groups according to Gleason scores (group A: Gleason 2-6, Group B: 7 and group C: 8-10). 31 of prostate cancer patients (50%) in group A and 23 of (37%) in group B and 8 (13%) were classified as the group C. The mean levels of vitamin D were 17.52 µg/ml 14.75 µg/ml and 10.61 µg/ml for groups A, B, C respectively. Comparison of Group A with Group C revealed significantly higher vitamin D levels in the former group (p<0.001).

# CONCLUSIONS

Higher vitamin D levels might have protective effect in the development of high risked prostate cancer.









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The Organizing Committee hereby CERTIFIES that

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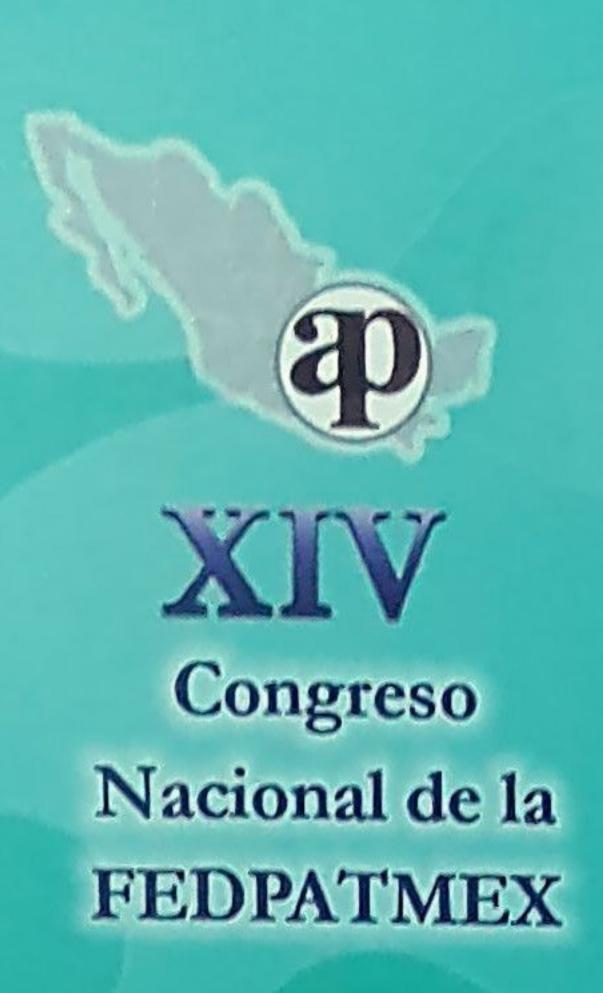
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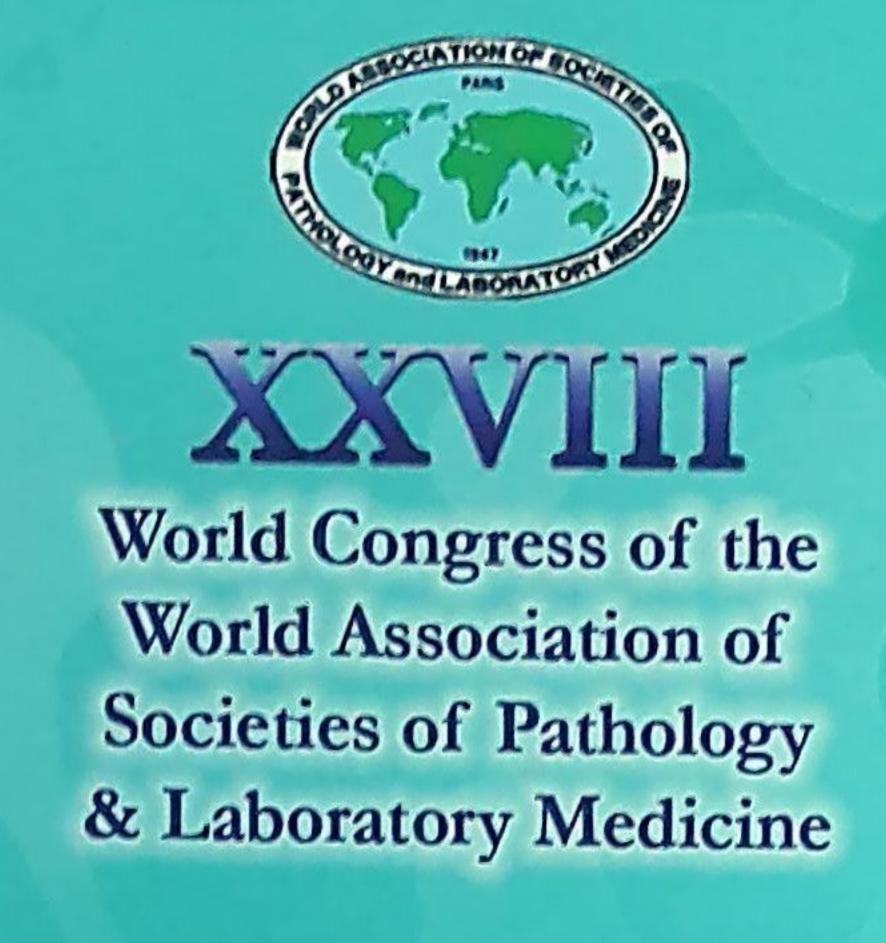
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