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## Correlation between calcification of prostate in transrectal ultrasonography with

## existence of prostate cancer in patients' biopsy of Imam Khomeini Hospital between 2005-2011

## **Abstract**

**Introduction:** Aim of this study was to assess the association between prostate calcification in transrectalultrasound (TRUS) and sonoguided needle biopsy in prostate cancer (PCa).

Methods: A cross-sectional study was performed on patients referred to Imam Khomeini Hospital between 2005 and 2011 who underwent **TRUS PSA** abnormal DRE. The biopsy due increased or serum to PSA, levels of transition prostate volume and zone volume and Gleason grade were compared between patients with and without calcification.

**Results:** Α total of 1608 cases were included and the mean of age  $66.3 \pm 8.6$ (range: 37-96) Calcification patients was years. was observed in 105 cases (6.5%) and 515 (32%) hadPCa. There was no statistically significant relationship between PCa calcification and on TRUS. Among non-cancerous patients, there was a significant difference in the mean **PSA** level among individuals with and without calcification PSA (10.3±7.8 vs. 8.9±7.6; P=0.028). There was no difference between subjects with and without calcification in mean prostate volume and transition lobe volume among all patients and also Gleason score in patients with PCa.

relationship **Conclusion:** Our study is the first in Iran that evaluate the calcification ultrasound and PCa. The incidence between in of calcification in TRUS among Iranian patients was 6.5%. It is showed that there is no statistically significant association between prostate cancer and existence of prostate tissue calcification in TRUS.

Keywords: Calcification, prostate cancer