

PROSTATE ACTIVITY IN MEN WITH SPINAL CORD INJURY

Hypothesis / aims of study

To compare prostate volume (PV) and serum prostate-specific antigen (PSA) in men with and without spinal cord injury (SCI)

Study design, materials and methods

A total of 64 men aged > or =40 years who had suffered from SCI were investigated and compared with 64 age-matched controls. We obtained the community-based prostate screening data of Gochang district, South Korea, in which PV and PSA level were included. The data were provided kindly from the Korea Prostate Health Council. We extracted the 64 age-matched subjects randomly as a control group from the data. We measured PV using transrectal ultrasonography and examined the PSA level by an immunoenzymatic assay, and then compared between groups.

Results

64 men with SCI were enrolled. Median duration of the SCI was 58 months (8-180). The mean ages of both groups were 54.08±9.38 in SCI and 56.48±4.89 in non-SCI, respectively (p=0.071). There was significant statistical difference between two groups in terms of total PV (19.43±4.47 in SCI vs. 24.20±8.56 in non-SCI, p<0.001). However, there was no significant statistical difference between two groups in total serum PSA level (0.99±1.61 in SCI vs. 1.06±1.18 in non-SCI, p=0.801). Complete SCI subjects had smaller prostate compared with those of incomplete type of SCI (p=0.017). However, there were no statistical differences according to the level of the SCI in terms of total PV, transition zone PV, total serum PSA and free PSA.

Interpretation of results

Concluding message

Men with SCI have a smaller prostate and lower serum PSA levels than those without. In addition, our data show that SCI type (complete vs. incomplete) is more important factor to affect the decreased prostate activity rather than SCI level (above T8 vs. below T9). Conclusively, authors suggest that an impaired nerve innervation to the prostate may decrease prostate activity.

References

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Disclosures

Funding: no **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** Chonbuk National University Hospital Institutional Review Board **Helsinki:** Yes **Informed Consent:** Yes