COMPARISON OF SEXTANT AND 10-CORE BIOPSY FOR THE DETECTION OF PROSTATE CANCER

Abstrak:

Purpose: to compare the sensitivity, specificity, positive predictive value, negative predictive value and accuracy of sextant and 10-core biopsies in detection of prostate cancer.

Material and Methods: We collected medical records of patients retrospectively who underwent prostate biopsy between 2005–2009 and performed diagnostic study. Two groups were made by the period of biopsies taken (between 2005–2007 for sextant core, and between 2007–2009 for 10-core which were the standard technique). The percentages of positive cores was calculated and analyzed by a ROC curve.

Results: The data from 660 patients, 353 (53%) underwent sextant core biopsy, while 307 others (47%) had a 10-core biopsy. Thirty patients were diagnosed as high-grade prostatic intra-epithelial neoplasia based on the biopsy, and 6 (20%) from them were confirmed as adenocarcinoma of the prostate based upon the surgical specimen. Sextant core biopsy had a sensitivity, specificity, positive predictive value, and negative predictive value of 70.37%, 98.67%, 82.61%, and 97.37%, respectively. While the 10-core biopsy had a sensitivity, specificity, positive predictive value, and negative predictive value of 91.43%, 99.25%, 94.12%, and 98.88%, respectively. Accuracy of sextant core and 10-core biopsy in the detection of prostate cancer were 84.4% and 95.3%, respectively.

Conclusions: In this study, 10-core prostate biopsy technique had a higher accuracy, sensitivity, specificity, positive predictive value, and negative predictive value than the sextant core for prostate cancer detection, which is the goal of the procedure. These results proof again the superiority of the 10-core biopsy.

Keyword:

prostate cancer, sextant core, 10-core, biopsy, kosong

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