

The impact of saturation biopsy in decision making for low risk prostatic carcinoma after prior positive biopsy.

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OBJETIVES: To evaluate the role of saturation prostate biopsy (SBx) in determining the strategy of treatment in patients with low risk prostate cancer (LRPCa).

METHODS: A retrospective review was done of the records of 169 patients who underwent SBx at our institution from February 2008 to June 2011. 98 of them were low risk patients in the previous biopsy and harbored indolent PCa defined as: PSA < 10 ng/ml, Gleason score (GS) 6 or less, clinical stage T2a or less, unilateral disease and a maximum of one third positive cores at first biopsy and < 50% of the core involved. These patients underwent a volume-adjusted saturation biopsy under general anesthesia with template. Age, prostate-specific antigen (PSA) level (ng/ml), prostate volume (cc), total number of cores at biopsy, size of the sample (mm), complications following Clavien-Dindo classification and upstage. Upstage was defined as an increase in (GS) or bilateral disease at SBx. A descriptive analysis, T test for comparison of means and Chi² Pearson was performed.

RESULTS: We performed SBx in 98 prostates with a mean (SD) prostate volume of 43 cc (\pm 15) and a mean number of cores of 26 (\pm 7). The mean total sample size was 251 mm (\pm 87).

The SBx were positive in 65,3% of the patients and among them the 46,9% showed upgrade (53,3% increased Gleason score, 30% bilateral disease and 16,6% both).

A 12,2% of complications were found, being grade 2 of Clavien classification (83,3%) the highest and acute urinary retention de most common complication (6,1%)

The 80,6% of the patients with confirmed LRPCa underwent less aggressive therapy (active surveillance or focal therapy) and 73,4% of upgrade patients received a radical treatment (surgery, brachytherapy or external beam radiation therapy).

<i>Characteristics of the serie.</i>				
	SBx positive (n=64)	SBx negative (n=34)	p value	Total serie SBx (n=98)
Age (years)	64,8 (\pm 6,9)	62,4 (\pm 5,3)	0,059*	64 (\pm 6,4)
Total PSA (ng/ml)	6,4 (\pm 1,6)	6,2 (\pm 1,9)	0,612*	6,3 (\pm 1,7)
Volumen (cc)	41,4 (\pm 14,5)	46,2 (\pm 16,7)	0,138*	43 (\pm 15,4)

Total number of cores at first biopsy	11,6 (± 2,3)	13,6 (± 4,1)	0,014*	12,37 (± 3,1)
Positive cores at first biopsy	1,3 (± 0,6)	1,2 (± 0,43)	0,602*	1,2 (± 0,5)
Total number of cores at SBx	25,6 (± 6,9)	25,53 (± 8,3)	0,944*	25,6 (± 7,4)
Size of the total sample SBx (mm)	256,7 (± 80,8)	241,72 (± 100,7)	0,429*	251 (± 87)
Complications:	92,2% (59)	79,4% (27)	0,066†	87,8% (86)
• No	7,8% (5)	20,6% (7)		12,2% (12)
• Yes:	0	5,9% (2)		16,7% (2)
○ Clavien 1	7,8% (5)	14,7% (5)		83,3% (10)
○ Clavien 2				
Mean (± standard deviation)				
*T test				
†Chi ² Pearson				

CONCLUSIONS: SBx represents an accurate option to improve the detection of significant disease in men with LRPCa. In our experience, It allowed to verify disease upgrade in 30,6% of the cases with an acceptable rate of complications (12,2%). Therefore, the information provided by the SBx, may enhance patient selection for watchful waiting/active surveillance, focal therapy or radical therapy.