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Inflammation in benign prostatic hyperplasia: a 282 patients' immunohistochemical analysis.

Grégoire Robert, Aurélien Descazeaud, Nathalie Nicolaïew, Stéphane Terry, Nanor Sirab, Francis Vacherot, Pascale Maillé, Yves Allory, Alexandre de La Taille

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Figure 1 : Standard coloration and immunostaining with CD3, CD4, CD8, CD20 and CD163 antibodies on different BPH samples from 3 surgery-derived BPH specimens: from low to high grade inflammation

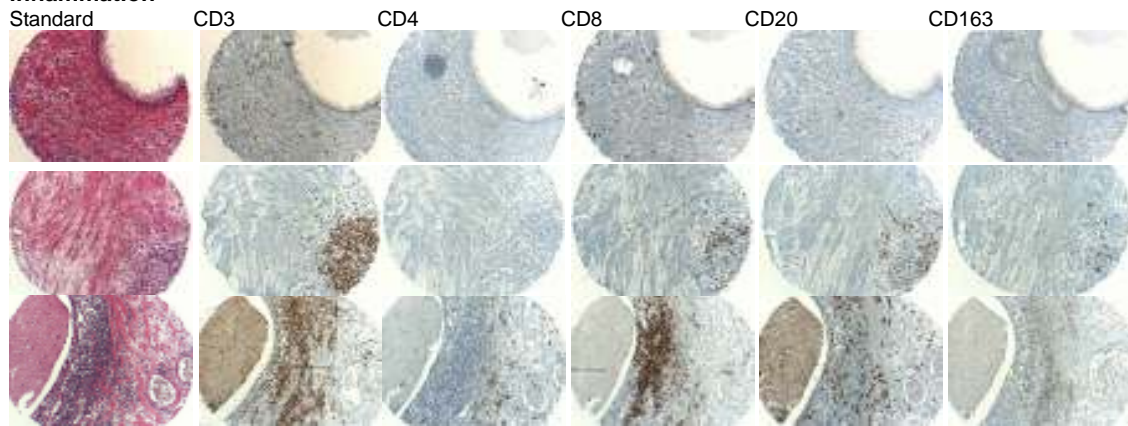


Table 1: Description of the inflammatory infiltrate in 275 patients using cytological or IHC grading

Cytological inflammation grading			IHC inflammation grading		
	Grade	n		Grade	N
lymphocyte	0	63	CD3	0	59
	1	128		1	117
	2	84		2	101
macrophage	0	154	CD4	0	169
	1	121		1	96
polynuclear	0	260	CD8	2	12
	1	15		0	54
atrophy	0	215		1	135
	1	60		2	89
destruction	0	254	CD20	0	133
	1	21		1	85
fibrosis	0	233	CD163	2	57
	1	42		0	51
				1	154
				2	72

IHC : immunohistochemistry

Table 2: Inflammation scores in 275 patients

Cytological inflammation score		IHC inflammation score	
Grade	n	Grade	n
0	47	0	14
1	70	1	16
2	102	2	31
3	45	3	40
4	13	4	41
5	2	5	39
		6	27
		7	32
		8	19
		9	11
		10	5

IHC : immunohistochemistry

Table 3: Frequencies of inflammatory phenotypes expressed by 275 patients on IHC

CD4	CD8	CD20	CD163	n (%)
+	+	+	+	61 (22.2)
-	+	+	-	57 (20.7)
-	+	-	-	42 (15.3)
+	+	-	+	28 (10.2)
-	-	-	+	23 (8.4)
-	-	-	-	14 (5.1)
-	+	-	-	14 (5.1)
-	-	+	+	9 (3.3)
-	+	+	+	8 (2.9)
+	+	-	-	7 (2.5)
+	+	+	-	5 (1.8)
+	-	-	+	3 (1.1)
+	-	-	-	2 (0.7)
+	-	+	+	2 (0.7)

IHC : immunohistochemistry; (-): absence of expression; (+): presence of expression

Table 4: Comparison of clinical parameters between patients with low and high grade inflammation

	All patients	Cytological score			IHC score		<i>p</i>
	n=275	Low n=215	High n=60	<i>p</i>	Low n=142	High n=133	
<i>Quantitative parameter (Student T-test): mean</i>							
Age (year)	70	70	71	0.16	70	70	0.9
PSA (ng/ml)	10.1	9.9	11.4	0.6	9.8	10.6	0.7
Prostate volume (cc)	69	65	85	0.001	64	75	0.02
IPSS	14	13	15	0.8	12	21	0.02
<i>Qualitative parameters (Chi-square test): n (%)</i>							
Open Prostatectomy	105 (38.2)	73 (34.0)	32 (53.3)	0.010	42 (29.6)	63 (47.4)	0.003
Second TURP	22 (8.0)	19 (8.8)	3 (5.0)	0.4	14 (9.9)	8 (6.0)	0.3
No LUTS	31 (11.3)	21 (9.8)	10 (16.7)	0.2	16 (11.3)	15 (11.3)	1.0
Associated PCa	12 (4.4)	7 (3.3)	5 (8.3)	0.1	7 (4.9)	5 (3.8)	0.8
History of biopsies	84 (30.5)	66 (30.7)	18 (30.0)	1.0	34 (23.9)	50 (37.6)	0.018
History of AUR	87 (31.6)	70 (32.6)	17 (28.3)	0.6	49 (34.5)	38 (28.6)	0.3
Phytotherapy	10 (3.6)	8 (3.7)	2 (3.3)	1.0	7 (4.9)	3 (2.3)	0.3
5-ARI	19 (6.9)	13 (6.0)	6 (10.0)	0.3	12 (8.5)	7 (5.3)	0.3
α-blocker therapy	67 (24.4)	54 (25.1)	13 (21.7)	0.7	32 (22.5)	35 (26.3)	0.5
IHC : immunohistochemistry; TURP: trans urethral resection of the prostate ; PCa: prostate cancer; LUTS: lower urinary tract symptoms; AUR: acute urinary retention; 5-ARI: 5 alpha reductase inhibitor							

