

## 16 Association of family history and prostate cancer

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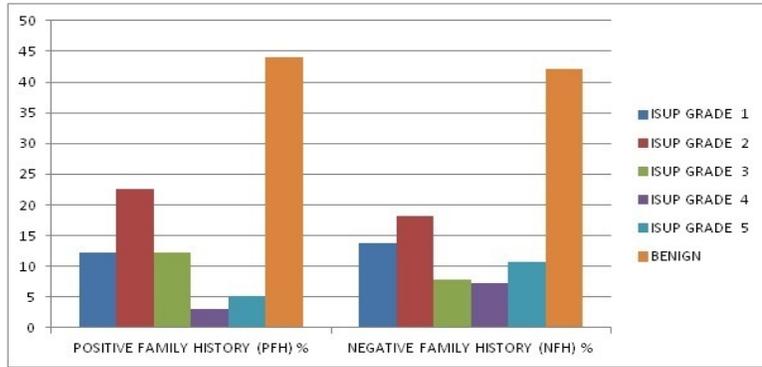
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**Introduction & Objectives:** To study the association of family history and diagnosis of prostate cancer (CaP) in patients with elevated Prostate Specific Antigen (PSA) and/or abnormal Digital Rectal Examination (DRE) who underwent Transrectal Ultrasound Guided Prostate Biopsy (TRUSPB).

**Materials & Methods:** A prospective cohort study of 610 patients who underwent TRUSPB at our hospital between April 2017 and Mar 2019. Patients were split into two groups according to positive (PFH) or negative family history (NFH) for CaP. Patient age, PSA level and histological grading (International Society of Urological Pathology -ISUP- 2014) were recorded for analysis.

**Results:** Of the 610 patients, 97 (16%) patients had PFH and 513 (84%) patients with NFH. There was no difference between the two groups in mean age (PFH 66.9 Vs NFH 68.7) or mean PSA level (PFH 11.5 Vs 13.8). Abnormal DRE was found in 37 (38%) of PFH patients and in 246 (47%) of NFH patients. There was no statistical difference in CaP detection between the two groups (PFH 55% Vs and NFH 57% p = 0.142). High grade CaP (ISUP Grade 4 & 5) was present in proportionally fewer PFH patients (8.1% Vs 17.9%). Cancer was diagnosed at younger age (< 60 years) in PFH patients (12% Vs 5%).

INTERNATIONAL SOCIETY OF UROLOGICAL PATHOLOGY (ISUP) GRADES - 2014	POSITIVE FAMILY HISTORY (PFH) (97 Patients)		NEGATIVE FAMILY HISTORY (NFH) (513 patients)	
	Number	Percentage %	Number	Percentage %
ISUP GRADE 1	12	12.3	71	13.8
ISUP GRADE 2	22	22.6	93	18.1
ISUP GRADE 3	12	12.3	41	7.9
ISUP GRADE 4	3	3	37	7.2
ISUP GRADE 5	5	5.1	55	10.7
BENIGN	43	44	216	42.1



**Conclusions:** Although we did not detect an association between CaP detection rates and high grade CaP with positive family history we demonstrated such patients tend to be diagnosed at a younger age most likely awareness of CaP.