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Original Research Article

TO STUDY OF PROSPECTIVE AND RETROSPECTIVE CASES OF CARCINOMA PROSTATE & HISTOLOGICAL TYPING OF CARCINOMA PROSTATE CASES

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Abstract

Background & Method: The present study was carried with an aim to study of prospective and retrospective cases of carcinoma prostate & Histological typing of carcinoma prostate cases out in the Department of Pathology, Index Medical College, Hospital & Research Centre, Indore. Patients whose prostatic biopsies /TUR (Trans-urethral resection) prostate chips/ Prostatectomies were reported as carcinoma prostate. Diagnosed cases of carcinoma prostate were selected and clinical details of the patients were noted. The paraffin blocks of these cases were retrieved, for prospective cases, needle biopsies/TUR prostate chips/prostatectomy specimens received were processed, (for TUR chips the entire sample was processed) are Labelling - Histopathological section serial numbers were assigned after receiving the specimen & Tissue was fixed in 10% formalin for 12-24 hrs.

Result: Majority of cases of carcinoma prostate in our set up are diagnosed through histopathological examination of TUR prostate chips. Histopathological typing: 97 cases (97%) - Adenocarcinomas; includes 1 case of large duct carcinoma; 02 cases (02%) - Small cell carcinomas; oat cell type; 01 case (01%) - Adeno-squamous carcinoma

Conclusion: The histologic grade ought to be important for the clinical arranging, utilizing the degree of danger of growth to assist with picking the treatment offering the best advantage to chance proportion. Therapy determination isn't basic & has changed drastically during that time Orchiectomy & estrogen treatment overwhelmed therapy for a really long time.: Radical prostatectomy came & went alongside radiation treatment when it demonstrated hard to archive advantageous impacts, & the advantage to inconvenience proportions were less positive than they are today. As of now, revolutionary prostatectomy with the somewhat new nerve-saving activity is the inclined toward methodology on the off chance that the growth has all the earmarks of being restricted to the prostate.

Keywords: Carcinoma, Prostate & Histological.

Introduction

Carcinoma of the prostate is the most common internal malignancy among men in the US & is responsible for 10% of cancer deaths in this population. Nelson WG et al. [1] Although most prostate cancers are relatively slow growing & remain clinically unrecognized, their course is often unpredictable in terms of its speed of progression, perhaps because of the considerable heterogeneity of the histologic grade & a multitude of other factors that affect tumor growth.

Regardless of a post-mortem predominance of up to 80% in men by the age of 80 years, the clinical frequency is a lot of lower, demonstrating that most men kick the bucket with prostate malignant growth rather than of prostate disease.

The prostate is a pear formed glandular organ that weighs upto 20 gm in the typical grown-up male & that depends for its separation & ensuing development on androgenic chemicals integrated in the testis, acting through an ineffectively comprehended mesenchymal epithelial cooperation. Cunha GR [2]

The prostate weighs a couple of grams upon entering the world, at pubescence it goes through androgen-intervened development & arrives at the grown-up size of around 20 gm by age 20. It stays stable in size for around 25 years, & during the fifth decade a subsequent development spray begins in most of men. Sagalowsky AI et al. [3]

Generally, it has been isolated into front, center, back & two sidelong flaps by defining disparate boundaries from the halfway found urethra. One more division that corresponds better with the physiologic & pathologic highlights of the organ is into an internal (periurethral) & an external (cortical zone). The internal zone is the essential site for nodular hyperplasia (the uncommon carcinomas emerging from enormous channels), though the external zone is the site of preference for the standard adenocarcinoma emerging from

fringe pipes & acini. Blennerhassett JB [4], Kirchheim D[5] et al.

Material & Method

The present study was carried out in the Department of Pathology, Index Medical College, Hospital & Research Centre, Indore from May 2019 to April 2020. It was both a prospective & a retrospective study of 200 patients whose prostatic biopsies /TUR (Trans-urethral resection) prostate chips/ Prostatectomies were reported as carcinoma prostate. Diagnosed cases of carcinoma prostate were selected & clinical details of the patients were noted.

The paraffin blocks of these cases were retrieved, for prospective cases, needle biopsies/TUR prostate chips/prostatectomy specimens received were processed, (for TUR chips the entire sample was processed) are Labelling - Histopathological section serial numbers were assigned after receiving the specimen & Tissue was fixed in 10% formalin for 12-24 hrs.

The slides were then examined, diagnoses were reconfirmed (in retrospective cases), whereas histopathological typing of malignant lesions of prostate when present was done. Cases diagnosed as adenocarcinomas prostate were then graded as per Gleason's microscopic grading system & assigned Gleason's score.

Results

Table No. 1: Distribution of Cases as per Procedure

Procedure	No.	Percentage
Needle Biopsy	18	09.0
Prostatectomy	32	16.0
TUR Prostatectomy	150	75.0
Total	200	100.0

The above data indicates that majority of cases of carcinoma prostate in our set up are diagnosed through histopathological examination of TUR prostate chips.

Table No. 2: Age Distribution of Cases

Age Group	No.	Percentage
50 – 59 yrs	18	09.0
60 – 69 yrs	74	37.0
70 – 79 yrs	80	40.0
80 + yrs	28	14.0
Total	200	100.0

Table No. 3: Gleason Score as per specific grouping of cases

Gleason Score	Total
02-04	24
05-06	48
07	34
08-10	90
Not scored (small cell carcinoma).	04
Total	200

Histopathological typing: 194 cases (97%) - Adenocarcinomas; includes 02 case of large duct carcinoma; 04 cases (02%) - Small cell carcinomas; oat cell type; 02 case (01%) - Adeno-squamous carcinoma

Discussion

Dalkin BL et al[6] in their investigations discovered that following 50 years old, both occurrence & death rates from prostate malignant growth increments. By age 80 years,

roughly 60% to 70% of men have proof of carcinoma at post-mortem.

Aprikian AG et al[7] in their investigations of 151 instances of carcinoma prostate in men more youthful than 50 years saw that as 4.6% of cases were < 40 years, 15.3% were in the age bunch 40-44 years, 80.1% were 45-49 years.

Herman CM et al[8] concentrated on the job of essential Gleason design as an indicator of infection movement in Gleason Score 7 prostate malignant growth. He did a multivariate examination of 823 men treated with extremist prostatectomy for carcinoma prostate. They reasoned that patients with essential GP4 had higher repeat rates than patients with essential GP3 growths.

In their review, 643 patients (78%) had essential Gleason's example 3 & 180 (22%) had Gleason's example 4.

Studies by Herman et al have recommended that patients with GS 4+3 (essential example 4) have a more terrible guess than patients with GS 3+4 (essential example 3), which is in concurrence with the above study. Lilieby W et al[9] directed a review to assess & think about the effect of two significant histological evaluating frameworks on disappointment free endurance in patients with prostate carcinoma. Examples from 178 patients got were inspected all the while by two pathologies allotting WHO & Gleason grade. They reasoned that the Gleason gathering brought about better prognostic partition of patients. Out of an aggregate of 178 patients, 44 were GS <7, 58 were GS – 7; 76 were GS 8-10.

Conclusion

In the management & treatment of prostate cancer, the clinician must first evaluate the clinical stage of the tumor & then the age & general health of the patient. The histologic grade ought to be important for the clinical arranging, utilizing the degree of danger of growth to assist with picking the treatment offering the best advantage to chance proportion. Therapy determination isn't basic & has changed drastically during that time Orchiectomy & estrogen treatment overwhelmed therapy for a really long time.: Radical prostatectomy came & went alongside radiation treatment when it demonstrated hard to archive advantageous impacts, & the advantage to inconvenience proportions were less positive than they are today. As of now, revolutionary prostatectomy with the somewhat new nerve-saving activity is the inclined toward methodology on the off chance that the growth has all the earmarks of being restricted to the prostate.

References

1. Nelson WG, de Marzo AM, Isaacs WB: Prostate Cancer: Mechanism of disease. N Engl J Med 2003;349:366-381.
2. Cunha GR: Role of mesenchymal-epithelial interactions in normal & abnormal development of the mammary gland and prostate. Cancer 1994;74:1030-1044.
3. Sagalowsky Al, Wilson JD: Hyperplasia and carcinoma of prostate. Harrisons Principles of Internal Medicine, 14th Ed. 1:596-602.
4. Blennerhassett JB, Vickery AL Jr.: Carcinoma of the prostate gland. Cancer 1966;19:980-984.
5. Kirchheim D, Niles NR, Frankus E, Hodges CV: Correlative biochemical and histological studies on thirty radical prostatectomy specimens. Cancer 1966;19:1683-1696.
6. Dalkin BL, Fredrick R: PSA levels in men without clinical evidence of prostatic carcinoma. J Urol 1993;15);1837-39.
7. Aprikian AG, Zhang ZF, Fair WR: Prostate adenocarcinoma in men younger than 50 years. A retrospective review of 151 patients. Cancer 1994;74:1768-77.
8. Fowler JE Jr., Mill SE: Operable prostatic carcinoma. Correlations among clinical stage, pathologic stage, Gleason histological score and early disease free survival. J Urol 1985;133:49-52.
9. Lilieby W, Torlakovic E et al: Prognostic significance of histologic grading in patients with prostate carcinoma who are assessed by Gleason and WHO grading systems in needle biopsies obtained prior to radiotherapy. Cancer 2001;92:311-319.