

COMMENTARY

Prostatic Carcinoma: A Pakistani Perspective

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Abstract

As in many countries of the world, prostatic adenocarcinoma is extremely common in Pakistan. In a study carried out in our section, it was the third commonest malignancy in males, comprising almost 7% of all malignant neoplasms. Furthermore, another investigation revealed it to be the commonest malignant neoplasm in males in the seventh and eight decades, comprising 15% and 25% of respectively of all malignant neoplasms in these age groups. Recent data extracted from radical prostatectomy specimens in our department have revealed that the majority of carcinomas are advanced (like most other cancers in our country) when they are first diagnosed or treated. The majority of cases in which radical prostatectomy was performed showed not only advanced stage (pT3a or pT3b) but also exhibited extra-prostatic extension and positive surgical margins. For a cancer which is so common in our population, the diagnostic and therapeutic modalities available are extremely limited.

Key Words: Prostate cancer - incidence - Pakistan

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Introduction

Like the rest of the world prostatic adenocarcinoma is extremely common in Pakistan. In a study carried out in our section, it was the third commonest malignancy in males comprising almost 7% of all malignant neoplasms in males (Ahmad et al., 2007a). Another study in our section revealed it to be the commonest malignant neoplasm in males in the seventh and eight decades comprising 15% and 25% of respectively of all malignant neoplasms in these age groups (Ahmad et al., 2007b).

Also, recent data extracted from radical prostatectomy specimens in our department have revealed that the majority of carcinomas are advanced (like most other cancers in our country) when they are first diagnosed or treated. The majority of cases in which radical prostatectomy was performed showed not only advanced stage (pT3a or pT3b) but also exhibited extra-prostatic extension and positive surgical margins.

For a cancer which is so common in our population, the diagnostic and therapeutic modalities available are extremely limited.

Detection and Treatment

Trans urethral resection (TUR) specimens received in our department show a high incidence of carcinoma. This may be due to several factors including small amounts of scattered tumor, predominantly centrally or antrally located tumor etc (Epstein, 2004). However, it also indicates extensive spread by conventional carcinoma from the peripheral portion of the gland (Rosai, 2004).

Studies have shown that 5 to 8 blocks are required to be examined for detection of 90-98% tumors in TUR specimens (Volmer, 1986; Rohr, 1987). However, a study performed in our department (Ahmad and Muzaffar, 2002) showed that 74% of the carcinomas included were detected on TUR or Tranabdominal suprapubic specimens, and in none of these cases, were more than 4 blocks submitted indicating the presence of extensive and advanced cancer. The fact of the matter is that in most cases received from smaller cities and towns across Pakistan (a heavily populated country with a population of around 170 million), clinical suspicion is mostly based on the presence of urinary symptoms such as weak stream, dribbling etc and digital examination. Transrectal ultrasound and serum PSA levels are performed in only a small percentage of cases. Based on the presence of urinary symptoms indicating enlarged prostate, TUR is performed, and if the specimen turns out to be carcinoma, patients are referred, without any attempt at staging, for radio and chemotherapy. Lucky are the small number of patients in whom serum PSA is performed.

In fewer still is the diagnosis established by sextant core biopsies. Even in most of these patients, the only surgical option available is trans-urethral resection since, astonishingly the number of surgeons in the country who can perform radical prostatectomy can be counted on the fingers of one hand (even this figure may be an exaggeration). Except at Aga Khan University (AKU) Karachi, there is no center in the entire country, where radical prostatectomy is performed regularly. At AKU, over the past several years, around a hundred radical prostatectomies have been performed. These are the

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luckiest patients, whose disease is diagnosed on the basis of raised serum PSA levels and sextant needle biopsies, and who undergo radical prostatectomy (with bilateral orchiectomy), have proper pathological staging performed, and undergo post-surgical radiotherapy and androgen suppression therapy if required. But these 'lucky' patients are like the proverbial needle in the haystack.

But for the vast majority of patients with prostatic adenocarcinoma in this country, TUR is the only diagnostic as well as therapeutic option. This means that the diagnostic and treatment modalities for this cancer (which is so common in Pakistan) are grossly underdeveloped and inadequate for the overwhelming majority of those suffering from this disease, whose treatment is as a result delayed and is grossly sub-optimal.

Although we have no data regarding mortality rates from prostate carcinoma in Pakistan, the above discussion would suggest that these rates may be abnormally high. It is imperative that diagnostic modalities, especially serum PSA levels and sextant prostate biopsies, be made affordable and accessible for the general population so that the carcinoma can be detected in early stages. In addition, surgeons must be trained and attain expertise in the technique of radical prostatectomy so that this form of treatment may be made available to the majority of patients with clinical stage T1b, T1c or T2 prostatic carcinoma.

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