16° CONGRESSO INTERNACIONAL DE uro-oncologia
11° SIMPÓSIO MULTIPROFISSIONAL DE URO-ONCOLOGIA
02 a 05 de abril de 2025 | Sheraton WTC – SP
Oncológica do Brasil

REVIEW ON RARE PROSTATE TUMORS EPIDEMIOLOGY, HISTOPATHOLOGICAL CHARACTERISTICS, AND THERAPEUTIC STRATEGIES

Kalysta de Oliveira Resende Borges[1]; Cairo Borges Júnior[1]; Bianca Victoria Resende Almeida[1]; Giulia Manuella Resende Almeida[1]; Karyne Oliveira Resende[1].

[1]Oncológica Tapajós, Santarém-PA

INTRODUCTION

Rare prostate tumors are aggressive malignancies distinct from acinar adenocarcinoma, the most common histological subtype. Their incidence is estimated at less than 5% (95% CI: 4.2%-5.8%), presenting diagnostic and prognostic challenges due to atypical clinical features and variable treatment responses.

DEVELOPMENT

This study reviewed their characteristics, epidemiology, and treatment options using data from PubMed, Scielo, and Web of Science.The analyzed histological subtypes include ductal carcinoma, small cell carcinoma, basal cell carcinoma, carcinosarcoma, and prostatic sarcomas. Ductal carcinoma accounts for 0.4%-0.8% of cases (95% CI: 0.3%-0.9%) and has high metastatic potential (40%-60% at diagnosis). Small cell carcinoma, a neuroendocrine subtype, is highly aggressive, lacks PSA expression, and has a median survival of under 18 months (95% CI: 14-22 months).

Basal cell carcinoma resists hormone therapy and recurs in over 50% of cases within five years. Carcinosarcoma, occurring in less than 0.1% of cases (95% CI: 0.05%-0.15%), features epithelial and mesenchymal elements and often develops post-hormonal or radiation therapy. Prostatic sarcomas, including rhabdomyosarcoma and leiomyosarcoma, are highly aggressive; rhabdomyosarcoma is more common in children, whereas leiomyosarcoma affects adults, with a five-year survival rate of 10%-30% (95% CI: 8%-35%). Treatment varies by histological subtype and disease stage. Radical prostatectomy is preferred for localized cases, while advanced tumors require multimodal therapy, including chemotherapy and radiotherapy. Ductal carcinoma benefits from surgery and adjuvant radiotherapy, improving progression-free survival by up to 30% (95% CI: 25%-35%).

Small cell carcinoma responds best to platinum-based chemotherapy, extending median survival by approximately six months (95% CI: 4-8 months). Carcinosarcoma demands aggressive multimodal treatment due to its high recurrence rate. Sarcomas are managed with doxorubicin and ifosfamide, but recurrence rates exceed 70% within two years (95% CI: 65%-75%).

CONCLUSION

The study highlights the need for standardized treatment guidelines due to the rarity and heterogeneity of these tumors. Their significant morbidity and mortality underscore the importance of early diagnosis through histopathological and molecular analysis to guide individualized therapy. Future research should prioritize targeted therapies and personalized medicine to enhance patient prognosis and quality of life.

REFERENCE

Humphrey PA. Histological variants of prostatic carcinoma and their significance. Histopathology. 2012 Jan;60(1):59-74. doi: 10.1111/j.1365-2559.2011.04039.x. PMID: 22212078.

Wang W, Epstein JI. Small cell carcinoma of the prostate. A morphologic and immunohistochemical study of 95 cases. Am J Surg Pathol. 2008 Jan;32(1):65-71. doi: 10.1097/PAS.0b013e318058a96b. PMID: 18162772.

Dundore PA, Cheville JC, Nascimento AG, Farrow GM, Bostwick DG. Carcinosarcoma of the prostate. Report of 21 cases. Cancer. 1995 Sep 15;76(6):1035-42. doi: 10.1002/1097-0142(19950915)76:6<1035::aid-cncr2820760618>3.0.co;2-8. PMID: 8625205.