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Metastatic involvement of penis from colon cancer: Magnetic resonance imaging features

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ABSTRACT

Development of penile metastasis in patients with colorectal cancer is a rare condition and is associated with widespread metastasis and poor outcomes. We report a Case of metastasis to the penis with unique magnetic resonance imaging feature.

Introduction

Metastasis to the penis is a rare condition and usually originates from primary genitourinary malignancies. Herein, we present a Case of penile metastasis originating from a colorectal tumor.

Case presentation

A 42-year-old man with prior history of surgery and chemoradiation for colon cancer presented to our outpatient urology clinic with obstructive urinary symptoms. Physical examination revealed nonulcerated, firm to hard nodules within the corpora cavernosa. MRI revealed widespread metastases to liver, peritoneum, corpus cavernosum and corpus spongiosum. Axial and sagittal T2-weighted MR images show several bilateral small-sized low signal intensity nodules at both corpora cavernosa with involvement of tunica albuginea at both sides. Corpus spongiosum and the glans penis are also involved (Fig. 1). The patient was referred to an oncologist to receive systemic treatment; however, due to extensive metastatic involvement palliative treatment/ best supportive care was recommended. The patient also complained of severe obstructive urinary symptoms. All attempts to pass a urethral catheter failed and suprapubic catheter was inserted to drain the bladder. The patient succumbed to the disease after one month.

Discussion

Few reports of metastasis from colorectal cancers to the penis exist in the literature.^{1–3} Presenting symptoms are induration and swelling of the penis, difficulty with micturition, hematuria and priapism. Metastasis to the penis is associated with widespread metastasis and poor outcomes. Treatment options including surgery, radiation and chemotherapy are used palliatively without any potential for cure or survival benefit.¹ More than half of penile metastases originate from other urogenital organs, namely bladder and prostate, while the remaining cases have other systems such as lungs and the gastrointestinal tract as primary sites.⁴ Other conditions associated with penile masses include primary penile malignancies (most commonly squamous cell carcinoma), inflammatory lesions, infections, and premalignant lesions.⁵

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Declaration of competing interest

Authors declare no conflict of interest.

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Fig. 1. Axial and sagittal T2-weighted MR images show several bilateral small-sized low signal intensity nodules at both corpora cavernosa, corpus spongiosum and the glans penis.

References

- Triki W, Kacem A, Itami A, Baraket O, Rebai MH, Bouchoucha S. Penile metastasis of colon carcinoma: a rare Case report. Urol Case Rep. 2019;24, 100875. https://doi.org/ 10.1016/j.eucr.2019.100875.
- Delto JC, Morlote D, Recine MA, Bhandari A. A Case of colon cancer metastasis to the penis. Urology. 2015;86(1):16–18. https://doi.org/10.1016/j.urology.2015.02.003.
- Dong Z, Qin C, Zhang Q, et al. Penile metastasis of sigmoid colon carcinoma: a rare Case report. *BMC Urol.* 2015:15–20. https://doi.org/10.1186/s12894-015-0014-9.
 Mearini L, Colella R, Zucchi A, Nunzi E, Porrozzi C, Porena M. A review of penile
- Mearini L, Colella R, Zucchi A, Nunzi E, Porrozzi C, Porena M. A review of penile metastasis. Onco Rev. 2012;6(1):e10. https://doi.org/10.4081/oncol.2012.e10.
- 5. Pettaway CA. Carcinoma of the penis: clinical presentation, diagnosis, and staging. In: Post TW, ed. *UpToDate*. Waltham, MA: UpToDate; 2021.