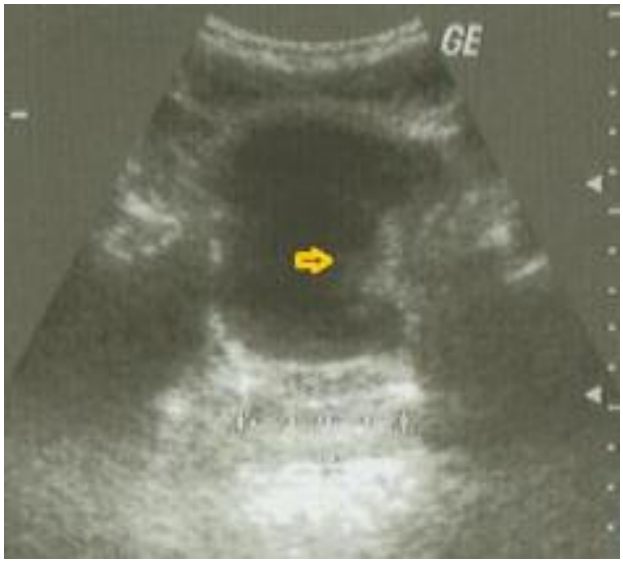

A case of spontaneous rupture perforation of sarcomatoid carcinoma in the urinary bladder

Sarcomatoid carcinoma (SC) of the urinary bladder is a rare malignant neoplasm. It consists of carcinomatous tissues originating from epithelium cells and multiform cells originating from the mesenchymal components. The majority patients have an advanced stage of the disease at the time of initial diagnosis (1). Typically malignant, this tumor has fast growth velocity with high invading potential to the surrounding tissues and poor prognosis. Although more than 70 cases of primary SC of the urinary bladder have been reported in the literature (2, 3), no cases of spontaneous perforation has been previously reported. Most spontaneous bladder ruptures occur as the result of long-term indwelling catheters, chronic cystitis, bladder overdistention, neurogenic bladder dysfunction, or radiation therapy for various pelvic malignancies (4, 5). Such rupture is a surgical emergency that may be rapidly fatal if its diagnosis and treatment is delayed or missed.
The purpose of this report is to present a case of SC in the bladder causing peritonitis by spontaneous bladder perforation. This is of interest because it's the first case reported in the English literature.

Case report

A 54-year-old man, diabetic and heavy smoker, was referred to our clinic with LUTS and gross painless hematuria that began 2 months earlier. No specific signs were noted in the initial physical examination. Abdominal ultrasound demonstrated a broad-based, irregular, hyperechoic and multiple tumors (Figure 1).

Figure 1: Abdominal ultrasound: An irregular, hyperechoic tumor of the bladder wall.



Cystoscopic examination revealed three, non-papillary, polypoid, large and non-pedunculated tumors having a necrotic tumor surface. They were located on the anterior wall (7 cm), trigone hiding the two ureteral meatus (3 cm) and on the right lateral bladder wall (4 cm). The bladder neck was also involved. Transurethral resection of the bladder tumors (TURBT) was performed. A subsequent histological examination of the biopsy specimens showed a biphasic malignant neoplasm exhibiting morphological evidence of epithelial and mesenchymal differentiation. The epithelial component had focally urothelial differentiation. The sarcomatous element was composed of undifferentiated malignant spindle cells with important nucleo-cytoplasmic atypies (Figure 2-3).

Figure 2: Microscopic aspect: mixture of carcinomatous and sarcomatous elements (HE x 100).

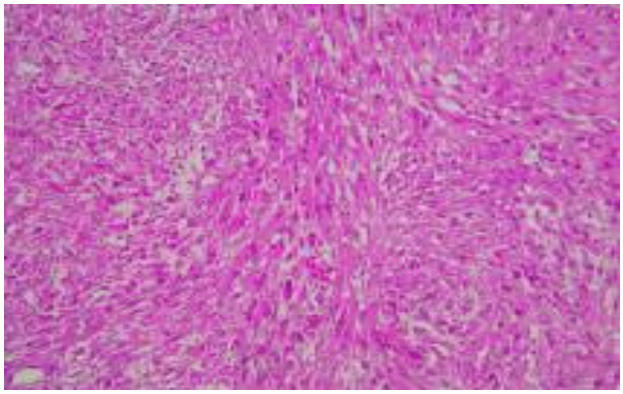
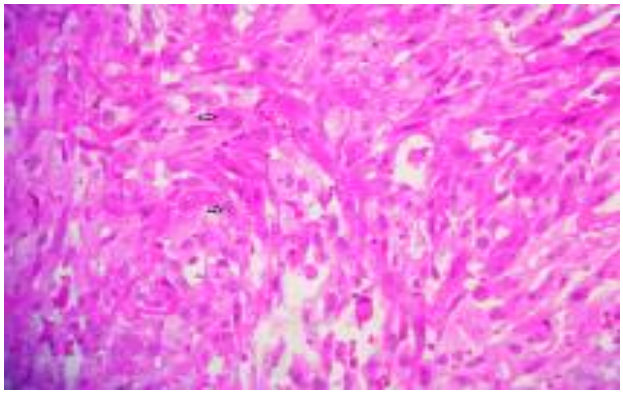


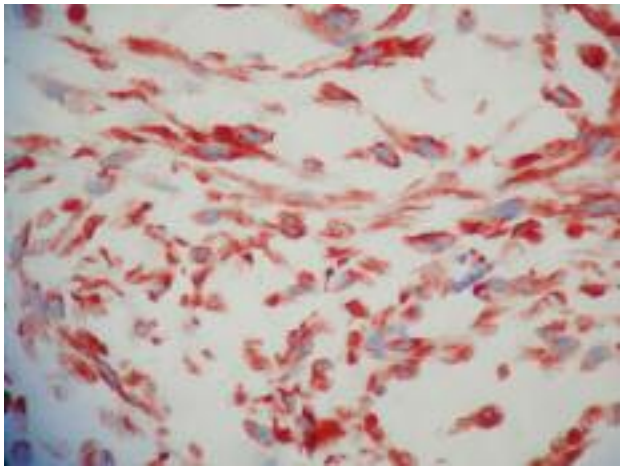
Figure 3: Microscopic aspect: Important nucleo-cytoplasmic atypies (HE x 100).



Immuno-histochemical examination showed that the carcinomatous component was positive for Keratin and the spindle cell component was positive for Vimentin (Figure 4) and Desmin but was negative for Actin. As a result, the tumor was pathologically confirmed as a primary SC of the urinary bladder. The patient was proposed for radical cystectomy. At 2 months after TURBT, the patient was emergently admitted to the hospital with acute abdominal pain and fever at 39°C. He did not have a history of recent pelvic trauma, instrumentation, pelvic radiation or episodes of acute urinary retention. On

physical examination, he was found to have abdominal tenderness and distension, which were worse in the lower abdomen and suggestive of peritonitis. The blood test showed marked leukocytosis. The serum creatinine level was elevated to 28 mg/L with biochemical features of acute renal failure (K: 5.5 mmol/l, Na: 128 mmol/l). Abdominal ultrasonography detected a large amount of intraperitoneal fluid. Open exploration showed a large (3 cm) tumoral left bladder wall disruption. The bladder tumor was nearly in contact with the sigmoid without any evidence of digestive fistula. Also, both ureters showed moderate dilatation. Conservative treatment by bladder suture with urinary drainage was attempted at the first time. Then, total cystectomy with bilateral ureterocutaneostomy was performed 48 hours later. Post-operative course was unremarkable.

Figure 4: Microscopic aspect: Vimentin positivity on spindle cell component (IHC x 400).



Conclusion

Bladder perforation associated with bladder cancer is an extremely rare cause of spontaneous rupture. The early diagnosis and the urgent surgical repair are the keys for such condition management.

References

1. Arenas LF, Fontes DA, Pereira EM, Hering FL. Sarcomatoid carcinoma with osseous differentiation in the bladder. Int Braz J Urol. 2006;32: 563-5.
2. Lopez-Beltran A, Pacelli A, Rothenberg HJ, et al. Carcinosarcoma and sarcomatoid carcinoma of the bladder: clinicopathological study of 41 cases. J Urol. 1998;159:1497-503.
3. Perret L, Chaubert P, Hessler D, Guillou L. Primary heterologous carcinosarcoma (metaplastic carcinoma) of the urinary bladder: a clinicopathologic, immunohistochemical and ultrastructural analysis of eight cases and a review of the literature. Cancer. 1998;82:1535-49.
4. Lee JH, You HW, Lee CH. Spontaneous intra peritoneal bladder perforation associated with urothelial carcinoma with divergent histologic differentiation, diagnosed by CT cystography. Korean J Urol. 2010;51:287-90.
5. Holmäng S, Kleist H, Lundstam S, Borghede G. Spontaneous perforation of the bladder after external beam radiotherapy for bladder carcinoma. J Urol. 1996;155:645.

Sataa Sallami1, Ines Chelly2, Chafik Kacem3, Mohamed Ben Slima 3

1Université de Tunis El Manar, Faculté de Médecine de Tunis, Hôpital la Rabta, Service d'Urologie, Tunis, Tunisie;

2Université de Tunis El Manar, Faculté de Médecine de Tunis, Hôpital la Rabta, Service d' Anatomotahologie, Tunis, Tunisie;

2Université de Tunis El Manar, Faculté de Médecine de Tunis, Hôpital la Rabta, Service de Chirurgie générale "B", Tunis, Tunisie

---

Carcinosarcome utérin

Le carcinosarcome constitue une entité pathologique relativement rare dont l'incidence parait augmenter ces dernières années. Ceci est du à une étude anatomopathologique plus précise et le recours à l'immunohistochimie. Les carcinosarcomes et les leiomyosarcomes constituent les sarcomes utérins les plus rencontrés, ils représentent environ 80% des sarcomes utérins [1]. Le carcinosarcome de l'endomètre représente moins de 1,5% de l'ensemble des tumeurs maligne du corps utérin [2]. Le carcinosarcome de l'endomètre est caractérisé par l'existence simultanée de deux composantes respectivement au dépend du tissu épithélial et mésenchymateux de l'endomètre. Les carcinosarcomes surviennent autour de la ménopause mais surtout en post ménopause, le plus souvent chez les femmes de plus de 65ans [3] avec un âge moyen de 53ans. L'IRM pelvienne ne permet pas de distinguer les carcinosarcomes des autres tumeurs de l'endomètre. Cependant elle garde un intérêt majeur dans le bilan d'extension. Seul l'examen anatomopathologique et immunohistochimique de la pièce opératoire permet de confirmer le diagnostic du carcinosarcome avec certitude en mettant en évidence la présence simultanée des deux composantes épithéliale et conjonctive malignes de la tumeur. Le carcinosarcome de l'endomètre est caractérisé par une évolution rapide et un mauvais pronostic.

Observation

Madame H.A âgée de 73ans, hypertendue, ménopausée depuis 35 ans, a consulté pour des métrorragies avec des douleurs pelviennes évoluant depuis un mois. L'examen gynécologique initial a trouvé un utérus augmenté de taille comme 12 semaines d'aménorrhée (SA). Le reste de l'examen somatique était normal. L'échographie pelvienne a montré un utérus augmenté de taille, avec une cavité occupée par un processus corporéal échogène hétérogène faisant 28*51mm vascularisé au Doppler évoquant une tumeur de l'endomètre (Figure 1). Les annexes avaient un aspect normal et sans épanchement dans le douglas. Devant les métrorragies, la patiente a eu un curetage biopsique de l'endomètre avec polypectomie, dont l'étude histologique a objectivé un carcinome de l'endomètre. L'IRM pelvienne a montré une masse tumorale du fond utérin et de la paroi antérieure mesurant 52 mm avec un envahissement myométrial inférieur à 50%, sans signe d'extension aux paramètres et sans atteinte ganglionnaire (Figures 2 et 3). Une radiographie du thorax a montré une cardiomégalie sans anomalie du