



Received: 2007.03.27
Accepted: 2007.07.09
Published: 2007.10.18

Giant urothelial carcinoma of unknown origin invading the sigmoid mesocolon – a case report

Authors' Contribution:

- A** Study Design
- B** Data Collection
- C** Statistical Analysis
- D** Data Interpretation
- E** Manuscript Preparation
- F** Literature Search
- G** Funds Collection

Agnieszka Kołacińska¹, Józef Howaniec¹, Jan Rykała^{1,2}, Maciej Stańczyk¹, Mariusz Pawlak¹, Zbigniew Morawiec¹

¹ Department of Surgical Oncology, Copernicus Memorial Hospital, Lodz, Poland

² Department of Plastic Surgery, Medical University of Lodz, Lodz, Poland

Summary

Background

Transitional cell carcinoma, also called urothelial carcinoma, is the most common malignancy of the urinary bladder. Additionally, it can develop in the lining of the renal pelvis, ureter, prostate and urethra. Exceptionally, cancer can arise from the urachus. Also primary transitional cell carcinoma of the endometrium or ovary is a rare entity.

Aim

The aim of this article was to present a case of giant urothelial carcinoma of unknown origin invading the sigmoid mesocolon.

Case Report

We report a rare case of urothelial carcinoma invading the sigmoid mesocolon in a 60-year-old female admitted to our department. The patient presented with a 25-cm intra-abdominal mass and 6-cm ulcerated lesion at the top of the umbilicus. Laparotomy was performed which demonstrated a huge polycystic and solid tumour of the sigmoid mesentery infiltrating the sigmoid colon and appendix. Appendectomy and resection of the tumour with an infiltrated sigmoid loop were performed. A right ovarian cyst – not contiguous to the aforementioned tumour – was found at the time of the operation and excised. We also removed the 6-cm skin lesion in the umbilical area.

Histopathological examination revealed urothelial carcinoma with squamous cell metaplasia of the sigmoid mesocolon with bowel and umbilical invasion.

Concurrent desmoid cyst (mature teratoma) of the right ovary was found.

Conclusions

In conclusion, this patient with a sigmoid mesocolon invasion from urothelial carcinoma of unknown origin posed a diagnostic dilemma.

Key words

urothelial carcinoma • sigmoid mesocolon invasion

Full-text PDF: <http://www.rpor.eu/pdf.php?MAN=11235>

Word count: 912

Tables: –

Figures: 4

References: 6

Author's address:

Agnieszka Kołacińska, Department of Surgical Oncology, Copernicus Memorial Hospital, Paderewskiego 4 Str., 93-509 Łódź, Poland, e-mail: agnkol@gazeta.pl

BACKGROUND

Transitional cell carcinoma, also called urothelial carcinoma, is the most common malignancy of the urinary bladder [1]. Additionally, it can develop in the lining of the renal pelvis, ureter, prostate and urethra [2]. Exceptionally, cancer can arise from the urachus – a fibrous cord remnant of the urogenital sinus that extends from the urinary bladder to the umbilicus formed during gestation [3]. Also, primary transitional cell carcinoma of the endometrium or ovary is a rare entity [4,5].

AIM

The aim of this article was to present a case of giant urothelial carcinoma of unknown origin invading the sigmoid mesocolon.

CASE PRESENTATION

A 60-year-old female was admitted to our department with an abdominal tumour. Her physical examination revealed a markedly increased waist circumference (Figure 1) with slight tenderness, 25-cm intra-abdominal mass and an exophytic, ulcerated lesion measuring 6cm at the top of the umbilicus (Figure 2).

Abdominal CT scan demonstrated an intraperitoneal cystic and solid lesion (250×196×110mm), in its liquid portion quite well circumscribed, in the solid portion probably infiltrating the adjacent adipose tissue. In the upper-left part of this tumour a 90mm-wide liquid-gas layer (abscess?) was detected. No link between this mass and the urinary tract could be confirmed. In the umbilical area the solid portion of the tumour penetrated the peritoneum and proliferated in the abdominal integument and skin (49×29mm) (Figure 3).

Free fluid in the hypogastrium could be found. Micronodular thickening of the omentum might suggest metastases. Retroperitoneally around the celiac trunk bifurcation some small lymph nodes up to 6mm were revealed.

The liver was not increased, without any features of metastases, but appeared cirrhotic. The gallbladder, intra-hepatic bile ducts, common bile duct and pancreas were without any abnormalities.

Both kidneys and adrenal glands were typically located, without any pathologies, no retention



Figure 1. Urothelial carcinoma invading the sigmoid mesocolon and umbilicus.



Figure 2. Umbilical invasion from urothelial carcinoma.

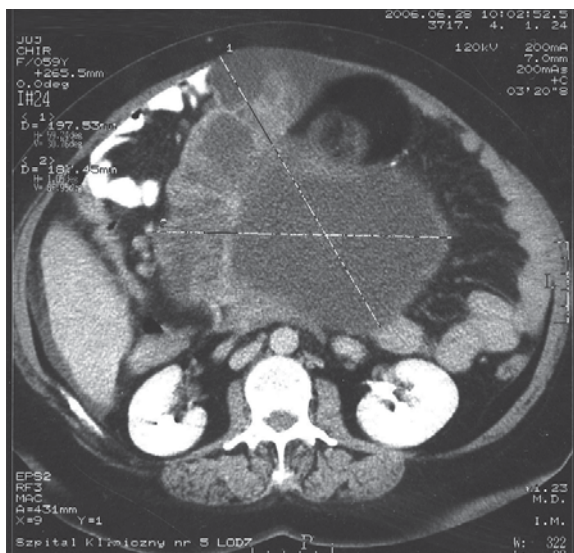


Figure 3. Abdominal CT scan of urothelial carcinoma invading the sigmoid mesocolon.

in the pyelocalyceal system, the urinary bladder without any abnormalities. The spleen was not increased and also major abdominal vessels were without any abnormalities.

Laboratory findings were contributory, in particular CA-125, CA 19-9 and CA 15-3, which were

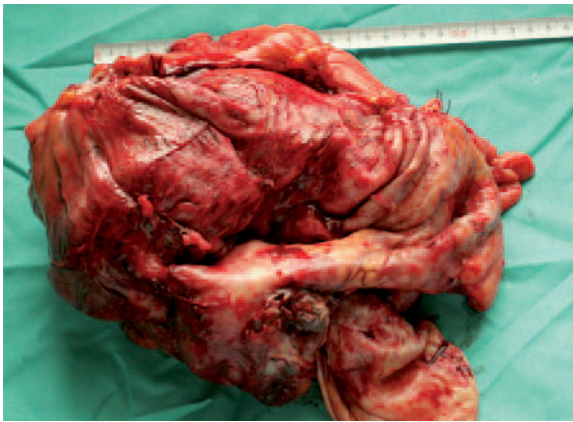


Figure 4. Excised urothelial carcinoma of unknown origin invading the sigmoid mesocolon

significantly increased (CA125 1250 U/mL; CA 19-9 1321 U/mL and CA 15-3 109.40 m/L, respectively).

Biopsy specimens from the umbilical area revealed presumably urothelial carcinoma G2 with squamous cell metaplasia. Our expert pathologist suggested that such neoplasms could originate from the urinary tract or reproductive organs.

Subsequently, the patient underwent a laparotomy which demonstrated ascites (approximately 1000mL). The liver was without visible metastases, but appeared cirrhotic (confirmed by biopsy). In the sigmoid mesentery a huge polycystic and solid tumour measuring approximately 23cm was found, infiltrating the sigmoid colon and appendix. Appendectomy and resection of the tumour with an infiltrated sigmoid loop were performed (Figure 4). Side-to-side anastomosis of the descending colon and sigmoid colon was performed using GIA 50 and TA 55 staplers. The sigmoid mesocolon was sutured. Micronodular thickening of the vesicouterine pouch was detected and biopsied. The right ovarian cyst – not contiguous to the aforementioned tumour – was excised. We also removed the 6-cm skin lesion in the umbilical area.

Histopathological findings are presented below.

Macroscopic description:

1. Exophytic, ulcerated tumour of the abdominal integument 6×6×2cm with 1.5-cm margin, from the side of the abdominal cavity covered with peritoneum 5×4.5cm.
2. Tumour of the sigmoid mesentery infiltrating the sigmoid colon – a 20-cm diameter cystic and solid mass adjacent to the sigmoid wall, bowel portion – 20cm.

3. Right ovary – Fallopian tube 4.5cm in length and 0.6cm (diameter) contiguous with cystic ovarian tumour 5.5×4.5×4cm, inside sebaceous masses and hair.

Microscopic examination:

- 1 and 2. Urothelial carcinoma (transitional cell carcinoma) with squamous cell metaplasia. In the abdominal integument the lesion was completely excised, infiltrating the subserous membrane, the margin from the peritoneum below 0.5mm.

Within the sigmoid colon the tumour involved the bowel wall from the outside; moreover, the appendix was also infiltrated externally. In intestinal vessels cancer embolism could be found. The proximal and distal intestinal margins were free of cancer.

Biopsies from the micronodular thickening of the vesicouterine pouch revealed metastatic urothelial carcinoma.

3. Right ovary – desmoid cyst (mature teratoma), right Fallopian tube – without any pathologies.

Despite intensive treatment such as administration of intravenous albumin, diuretics, arterial vasoconstrictors, antibiotics, etc, the patient died 8 days postoperatively, in our opinion due to hepatorenal syndrome, with oliguria, azotemia and coagulation disturbances, caused by hepatic cirrhosis. An autopsy was not performed because the patient's family objected.

DISCUSSION

In 1988 Saito et al. reported a patient with urachal transitional cell carcinoma invading the sigmoid colon [6]. The aforementioned tumour was the size of a hen's egg, found at the dome of the bladder extending to the sigmoid colon. The urachus was 8cm in length and 2cm in diameter, extending from the site of the tumour to the umbilicus. Total cystourethrectomy, excision of the urachus together with the umbilicus, pelvic lymphadenectomy, sigmoidectomy and colorectal anastomosis were performed.

CONCLUSIONS

In our patient the giant urothelial carcinoma was a separate entity of the sigmoid mesocolon

without any contiguity with the umbilical lesion or ovarian cyst and no patent urachus could be detected. Moreover, according to the patient and previous ultrasonography, umbilical involvement was secondary to the intra-abdominal mass. The question whether this was a urachal remnant cancer invading the sigmoid mesentery or the lesion in the mesentery was a metastatic deposit is pure speculation because preoperative evaluation of the urinary system other than the CT scan before surgery (such as cystoscopy) was lacking, but intraoperatively we could see no abnormalities of the ureters and bladder.

In conclusion, this patient with sigmoid mesocolon invasion from giant urothelial cancer of unknown origin posed a diagnostic dilemma.

REFERENCES:

1. http://pathology2.jhu.edu/bladder_cancer/types.ca.cfm
2. Arrizabalaga M, Navarro J, Mora M et al: Transitional carcinomas of the urinary tract: synchronous and metachronous lesions. *Actas Urol Esp*, 1994; 18(8): 782-96
3. Abe K, Wada T, Ueda M et al: Transitional cell carcinoma of urachus: a case report. *Hinyokika Kyo*, 2000; 46(9): 631-34
4. Ahluwalia M, Light AM, Surampudi K et al: Transitional cell carcinoma of the endometrium: a case report and review of the literature. *Int J Gynecol Pathol*, 2006; 25(4): 378-82
5. Yazigi R, Sahid S, Gutierrez J et al: Transitional cell carcinoma of the ovary. *J Obstet Gynaecol*, 2005; 25(7): 725-6
6. Saito K, Furuhashi A, Ogawa K et al: Urachal transitional cell carcinoma invading the sigmoid colon. *Hinyokika Kyo*, 1988; 34(6): 1039-42