<table>
<thead>
<tr>
<th>Title</th>
<th>BLADDER METASTASIS OF CHORIOCARCINOMA: CASE REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Itatani, Hiroaki; Hasegawa, Toshihiko; Takeuchi, Masafumi</td>
</tr>
<tr>
<td>Citation</td>
<td>泌尿器科紀要 (1974), 20(6): 385-387</td>
</tr>
<tr>
<td>Issue Date</td>
<td>1974-06</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/2433/121673">http://hdl.handle.net/2433/121673</a></td>
</tr>
<tr>
<td>Type</td>
<td>Departmental Bulletin Paper</td>
</tr>
<tr>
<td>Textversion</td>
<td>publisher</td>
</tr>
</tbody>
</table>

Kyoto University
BLADDER METASTASIS OF CHORIOCARCINOMA: CASE REPORT

Hiroaki Itatani, Toshihiko Hasegawa and Masafumi Takeuchi

From the Department of Urology, Osaka University Hospital, Osaka 553, Japan
(Chief: Prof. T. Sonoda, M. D.)

Choriocarcinoma demonstrates a high incidence of metastasis mostly due to a blood-borne spread. This reason could reflect the fact that there were only 1.1% metastasis to the bladder because of retrograde metastasis in an excellent review of 295 cases with metastasis by Park and Lees. Therefore, the initial presentation of this disease as a painless gross hematuria with clots retention is most unusual.

Case Report

A 42 year-old Japanese female was admitted with a history of painless gross hematuria with occasional clots retentions for 2 weeks in duration. The patient had been in good health up to June 18, 1973 when she had initial episode.

At the time of admission physical examination revealed obese, normally developed woman in moderate distress and suprapubic abdominal mass with tenderness. Temperature was 100.2 F degrees; pulse 98 per minute and regular; respiration 28 per minute and regular; blood pressure 136/78. The laboratory findings were hematocrit 22 per cent, hemoglobin 7.5 gms per cent and white blood count 7,200. The serum electrolytes, BUN, serum creatinine, blood sugar, calcium and phosphorus were within normal limits. The total protein was 5.1 gms per dl with albumin 2.6 gms per dl and globulin 2.5 gms per dl. The liver function tests were in normal range. The blood coagulation systems were within normal limits except for increased prothrombin time. The urine was bloody with few clots. The urine culture grew pseudomonous aerginosa 10⁶ per ml.

Review of systems were non-contributory. The patient had no previous serious illness. The patient had been in a normal cycle of 28 days with 5 to 6 days of menstruation of a flow which was described as some what heavy. The patient was the mother of 4 children. Her all children were delivered at full term and spontaneous vaginal deliveries. At the last pregnancy 3 years ago the patient received curettage at the first trimester.

An emergency IVP on admission showed slight dilatation of the right upper collecting system and multiple filling defects in the bladder (Fig. 1). The repeated IVP after cystoscopy showed no longer dilatation of the right upper collecting system. The chest x-ray on admission revealed unremarkable with several small calcifications (Fig. 2).

An emergency cystoscopy showed that there were many blood clots and the bladder mucosa appeared to be unremarkable except for small mucosal destruction associated with bleeding on the middle of the trigone, approximately 5 mm diameter. The both orifices appeared to be normal in positions, shapes and good peristalsis with an efflux of clear urine. The bladder neck and the urethra were within normal limits. A vaginoscopy and pelvic examination showed a normal cervix and one solitary and non-tender nodule on the right vaginal wall. The patient had not recognized about this nodule. After the cystoscopy the suprapubic abdominal mass disappeared.

In the hospital course the patient received 600 ml transfusion before the TU-biopsy of the trigone of the bladder and the biopsy
Fig. 1. The intravenous pyelogram shows dilated right upper collecting system with multiple filling defects in the bladder and contrast materials of previous upper GI series in the colon.

Fig. 2. Preoperative chest film on June 18, 1973.

of the nodule of the vaginal wall on the 5th hospital day. On the postoperative 2nd day the urine was clear. However the patient started to complain of dyspnea with peripheral cyanosis. The urine output started to decrease and general moist rales on chest were audible. At this point the chest x-ray was obtained suggesting pulmonary edema (Fig. 3). The patient received diuretics and digitalization without any improvement of these symptoms. The patient died with cardiac arrest on the 3rd postoperative day. On the same day the results of the biopsies were obtained as choriocarcinoma (Fig. 4).

The patient was submitted to an autopsy. The histological examination revealed choriocarcinoma of the uterus invading the muscle with an intact uterine capsule. No invasion to the bladder was demonstrated even the area of the biopsy. There were disseminating metastasis to the lung with multiple tumorous emboli. It was unable to demonstrate the metastasis to the other

Fig. 3. Postoperative chest film (portable). One week in duration from preoperative chest film Fig. 2.

Fig. 4. A histology of the specimen which was obtained with TUR-biopsy of the bladder, showing island of choriocarcinoma cells in submucosa with destruction of transitional epithelium. H & E, (x100)
Itani et al.: BLADDER METASTASIS OF CHORIOCARCINOMA: CASE REPORT

organisms including the liver, spleen, ovary or fallopian tubes. The patient primarily died due to the disseminated pulmonary metastasis with multiple tumorous emboli from choriocarcinoma of the uterus.

Discussion

The patient presented a painless gross hematuria with clots retention initially. The IVP showed unremarkable. The cystoscopy demonstrated mucosal destruction which might be missed as the changes of trigonal cystitis. It should be noted that the dissemination of chorionicarcinoma could occur to the lung with multiple tumorous emboli within 1 week at most. This could be due to mechanical manipulations such as cystoscopy, biopsy and pelvic examination.

In a review of the English literatures the bladder metastasis of chorionicarcinoma as an initial site and symptom is extremely rare. The bladder metastasis of chorionicarcinoma even in autopsy is rare being only 1.1 per cents (3/263) as much as bone marrow or spinal cord. The venous blood stream from the uterus to the bladder or the vagina should be retrograde anatomically if the bladder or the vaginal metastasis are true metastases in the sense of being embolic and blood borne. Attempts have been made to explain this peculiarly selective behavior by involving a uterovaginal plexus of vein to be found only in pregnancy. Also multiple emboli and thromboses in the drainage vein of the uterus could lead the retrograde blood flow causing retrograde metastasis.

Summary

A case of chorionicarcinoma was presented with its primary and unusual manifestation of the bladder as a painless gross hematuria with clots retentions. The diagnosis was established with TU-biopsy of the bladder and the biopsy of the vaginal nodule on the same day. The patient died on the 3rd postoperative day due to acute dissemination of chorionicarcinoma to the lung with multiple tumorous emboli. No direct invasion to the bladder was demonstrated at autopsy.

References