

Metastatic Urothelial Cancer of the Bladder Cancer Presented for the First Time in its Final Stage: Case Report and Literature Review

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Abstract

Introduction: According to the European Urologic Guidelines up to 85% of urothelial cancer of the bladder (UCa) is diagnosed at the non-metastatic stage, being gross haematuria the most common symptom in 70-80% of the cases. This report introduces the case of a T4 G3 metastatic UCa proved to be asymptomatic until its final stage, when an effective treatment is unavailable.

Case report: A 68-year-old male has been presenting dizziness and mild haematuria for fourteen days before arranging a doctor's appointment. Physical examination goes as follows: Apyretic, lightly painful abdomen. Serum creatinine 1.3 mg/dl, Hemoglobin 11.7 gr/dl. Abdominal ultrasound: Both kidneys were standard, bladder contained a heterogeneous mass. History: He remembers a single gross haematuria monosymptomatic episode 12 years before. Three months after the aforementioned episode, a pituitary macroadenoma 7 cm is size was diagnosed and surgically dissected; for this reason, the haematuria drew no attention. The patient had no spouse or close relatives. He had never had other gross haematuria episodes or other urologic symptoms before. Urine cytology: UCa grade 3. Chest radiography: Multiple metastases. Computed Tomography (CT) of thorax-abdomen-pelvis showed pulmonary, pleural, liver, mesenteric and bone metastases; positive lymphatic nodes in pleural membrane and between aorta and lung. Both kidneys were normal. The urinary bladder appeared to be filled with mass. Due to both clinical and personal circumstances, the patient, in agreement with his family, signed up for palliative care only. He passed away out of acute respiratory failure 41 days after the first consult.

Conclusions: Metastatic UCa at diagnosis shows a very poor survival rate. Chemotherapy with methotrexate + vinblastine + adriamycin + cisplatin can have a success rate of 30%, improving survival to 11-14 months with high toxicity.

For some patients, as it happened in the case at hand, clinical and/or personal circumstances make palliative care the best choice possible, provided there is patient-family consensus.

Keywords: Advanced bladder cancer; Belated diagnosis; Palliative care

Case Report

A 68-year-old male presented dizziness and mild haematuria for fourteen days before arranging a doctor's appointment. Physical examination: Apyretic, lightly painful abdomen. Serum creatinine 1.3 mg/dl, Hemoglobin 11.7 gr/dl. Abdominal ultrasound: Both kidneys were standard, bladder was filled with a heterogeneous mass. History: He remembers a single gross haematuria monosymptomatic episode 12 years before. Three months after the aforementioned episode, a pituitary macroadenoma 7 cm is size was diagnosed and surgically dissected; for this reason, the haematuria drew no attention. The patient had no spouse or close relatives. He had never had other gross haematuria episodes or other urologic symptoms before. Urine cytology: Transitional cancer grade 3. Chest radiography: Multiple metastases (Figure 1 and 2). Computed Tomography (CT) of thorax-abdomen-pelvis showed pulmonary, pleural (Figure 3), liver (Figure 4), mesenteric and bone metastases; and positive lymphatic nodes in pleural membrane and between aorta and lung. Both kidneys were normal. The urinary bladder appeared to be filled with mass (Figure 5). Due to both clinical and personal circumstances, the patient, in agreement with his family, signed up for palliative care only. He passed away out of acute respiratory failure 41 days after the first consult.

Literature Review

Bladder cancer is the ninth most common carcinoma in the world. There are up to 330,000 new diagnoses every year and it is the cause of death of up to 130,000 people per year [1].



Figure 1: Anterior-posterior chest radiography: Bilateral diffuse multiple nodes due to lung metastases.

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Figure 2: Lateral chest radiography: Diffuse multiple nodes due to lung metastases.



Figure 3: Chest CT: Multiple bilateral lung metastases. Pleural membrane lymphatic nodes. Lymphatic nodes between aorta and lung.

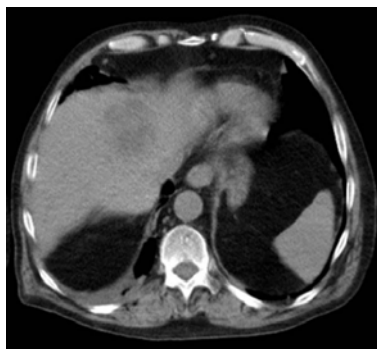


Figure 4: Abdominal CT: Liver metastases: one of 2cm in segment II and another one of 5.5cm in segment IV.

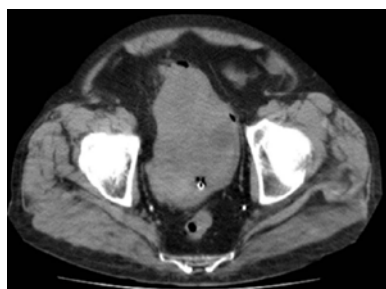


Figure 5: Pelvic CT: Bladder filled with heterogeneous mass.

Bladder cancer is the most common UCa, the most common urologic tumour in women and the second most common in men. The men/women ratio is of 3:1, at an average of 70 years of age. It appears more frequently in Caucasians. UCa makes up for 95% of bladder cancers. These tumours are considered superficial or non-muscle-invasive (70%), infiltrative (20%) or metastatic (10-15%). 80% of muscle-invasive transitional cell carcinoma is diagnosed de novo. 15-20% of the patients initially diagnosed with a superficial UCa will develop an invasive tumour [1-3]. 10-15% of patients with muscle-invasive UCa have a metastatic disease at the time of diagnosis [1,4,5]. 50% of patients with infiltrative UCa will develop metastases, most commonly located in liver, lung and bone [1,2,5,6].

Main prognostic factors are treatment timing, concomitant diseases, tumour types, previous treatments, renal and/or hepatic insufficiency, obesity, visceral metastases, functional status of the patient (Karnofsky performance status <80%). These last two factors play the most important role when deciding which treatment a patient is going to undergo [5]. Patients with metastatic UCa who are asymptomatic and have only positive lymph node or single metastases have the best prognosis [1,2,4]. Despite the importance of comorbidity during clinical practice, it is still yet to acquire a significant role in clinical essays or medical statistics [7]. Comorbidities are an important predictor of clinical results [8].

Muscle-invasive UCa has a highly systemic dissemination rate. Combining therapy and surgery, chemotherapy and radiotherapy are the only option of treatment for the patient. Histological studies and prior knowledge of positive lymphatic nodes can help the physician decide whether the patient can benefit from an adjuvant or a neo-adjuvant type of chemotherapy [9].

Advanced UCa is chemo-sensitive, but a little number of patients shows a positive response to this treatment, and just for a short time span; drugs with the highest activity rate are cisplatin and methotrexate, showing a 30% response. Survival rate for patients with supportive chemotherapy only lies within a 4 to 6 months ratio. However, this span can be doubled by administering a polychemotherapeutic protocol with the aforementioned drugs [4].

Prior to the introduction of chemotherapy development for UCa, patients with metastases would not survive for more than 3 to 6 months. Prognostic factors should provide a guide to the selection of proper treatment [1].

In non-treatable or metastatic bladder cancer, quality of life is reduced because of associated voiding problems, bleeding and pain, with subsequent social and sexual disruptions [10]. There is little literature available which describes what the quality of life in patients with bladder cancer undergoing palliative care is like, but there are reports of symptoms related to metastatic bladder cancer relieved by means of palliative surgery, radiotherapy and/or chemotherapy [11-13].

Discussion

We believe the best treatment possible for any given patient is that which provides said patient with the highest level of quality of life and health. When the patient's health cannot be improved through medical procedures, we believe that choosing the treatment that reduces the patient's quality of life in the least is the best course of action.

Within the medical literature consulted it is more frequent to find invasive treatment that were successful than to find real data from cases where this was not the case.

There are in existence several publications that feature diverse chemotherapy protocols for patients with UCa Metastases [1,14] but we have not been able to find studies where a comparison between quality of life and survival results among patients who underwent these trial protocols of new lines and therapeutic combinations and palliative care. Fortunately, we do not have a series of oligo-paucisymptomatic that debut at a terminal stage with UCa, therefore we want to make our experience with a unique case widely available.

The case we are reporting on is very rare case in our field. By introducing a patient like the one described, we want to contribute with an unpublished or less often reported type of case. We wish to also bring to light common mistakes that can be made within a health system where the social problems associated with certain patients, and the fact that some pathologies may not be closely monitored by the physician, are matters to be debated. It is certain that we have people in our offices with relevant comorbidities that are not taking into account the proper attention in the case of asymptomatic tumours.

In the case at hand, the absence of close relatives who could have closely followed the course of the disease and the presence of fear, ignorance and disinterest on the patient's part turned an already dire situation into a much worse one.

The slow progression of the disease has lead us to believe that, in this case, it all began as a superficial and/or low grade tumour, and that it was one of the 15-20% of cases that progress to increasingly aggressive stages.

Comorbidity in patients with advanced UCa is a controversial issue since, as a risk factor, comorbidity is commonly associated with poor outcomes in this kind of patients. In this particular case, the absence of symptoms and the attention given to a different problem (macroadenoma of the pituitary gland) lead to a surprisingly lengthy tumour evolution.

Considering that we have an advanced health system, with modern diagnosis and therapeutic resources, it is very rare for us to find a UCa at its stage without any prior sanitary intervention. Currently, only 4-11% of individuals at advanced ages that present muscle-invasive cancer undergo radical dissecting surgery, with a rate of complications of 24-60%, and a 90-day mortality rate of 10% [15].

Being at the final stage at the time of diagnosis, chemotherapy, radiotherapy or quality-of-life improving surgery could not be prescribed.

For some patients, as it was in this case, clinical and personal circumstances make Palliative Care the best possible choice, provided there is a patient/relatives consensus is reached.

Conclusion

Urothelial cancer of the bladder, metastatic at diagnosis, has a poor survival rate. Chemotherapy with methotrexate + vinblastine + adriamycin + cisplatin has a response rate of 30%, improving survival 11-14 months with high toxicity.

For some patients, as in the case at hand, clinical and/or personal circumstances make palliative care the best choice possible, provided there is patient-family consensus.

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