

Misinterpretation resulting in a diagnosis of bladder cancer – A case emphasising the value of diagnostic reconsideration

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ABSTRACT

A patient was suspected for MIBC and underwent multiple TURBTs but due to large discrepancy between pathological findings, symptom progression and clinical findings, diagnostic reconsideration was necessary. Re-evaluation revealed a benign inflammatory condition of the bladder with no malignancy. Final treatment involved robotic assisted reconstruction of the bladder with bowel augmentation.

This patient case emphasises the need for reconsideration when pathological findings are not consistent with the suspected diagnosis.

1. Introduction

Physicians must always pursue diagnostic accuracy when handling a disease in order to ensure optimal treatment. However, wrongful interpretation in the process can result in an incorrect diagnosis and treatment.

The following case report describe a patient case in which misinterpretation of clinical findings and wrong initial histological evaluation lead to a clinical diagnosis of muscle invasive bladder cancer (MIBC). Accurately diagnosing required reconsideration of the initial interpretation as well as revision of the original pathological specimen.

2. Case report

A 56-year-old man was referred to the Department of Urology with lower abdominal and urethral pain. Moreover, he was suffering from pollakiuria and nycturia. CT urography identified thickening of the urinary bladder wall and the distal part of both ureters (Fig. 1).

Cystoscopy revealed suspicious changes in the bladder (Fig. 2) interpreted as MIBC which caused a subsequent diagnostic TURBT. Histological examination confirmed the diagnosis of bladder cancer but the lesion was interpreted as low grade Ta-tumor. Based on this discrepancy, two additional TURBTs were performed which only found fibrosis despite extensive and deep resection in the suspected MIBC areas.

The large discrepancy lead to revision of the original

histopathological specimen which revealed that there was no evidence of neoplastic urothelial tumour at any time. Specimen showed chronic inflammation and fibrosis. Thus, the diagnosis of BC had been wrong and the patient instead had an invalidating unspecified idiopathic inflammatory condition in his bladder.

Urodynamic examination showed a severely reduced bladder capacity of only 41 ml and poor compliance of the bladder wall. Neurogenic aetiology and malignancy was ruled out by MRI and FDG-PET/CT.

Gradually, the symptoms worsened and the patient was suffering from urge, up to 80 voidings per day and night time incontinence. Uracyst treatment, oral treatment with selective β_3 -adrenoceptor agonist as well as Botox injections were attempted but with no subjective effect.

Cystoscopy 15 months after the initial cystoscopy showed absence of the previously identified mucosal changes. The patient underwent Clam enterocystoplasty as a robotic assisted procedure which was necessary in order to identify the very small and fibrotic bladder (Fig. 3). The bladder was then successfully augmented by the use of a detubulized part of terminal ileum.

Six months following the bladder augmentation, bladder volume was 600 ml and satisfactory bladder emptying was achieved by self-catheterisation.

3. Discussion

In this case the patient was diagnosed with BC which was expected,

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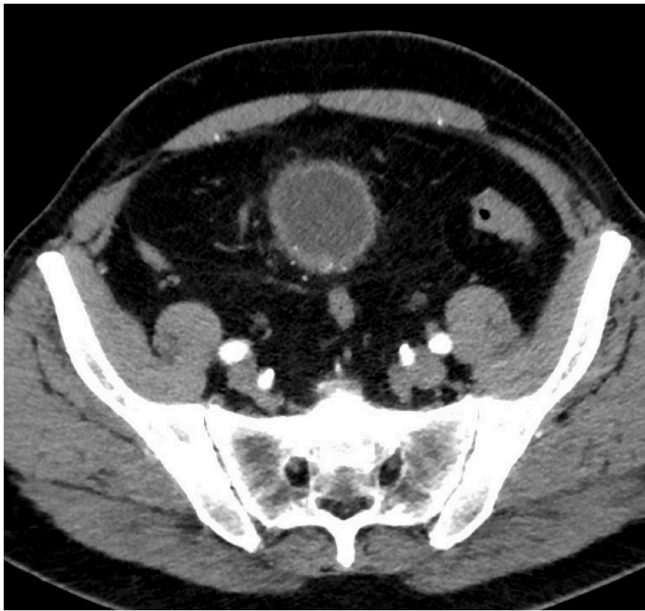


Fig. 1. CTU identified focal thickening of the bladder wall suggesting a solid tumor. The distal part of both ureters showed epithelial thickening as well but without affecting the drainage from the upper tract system.

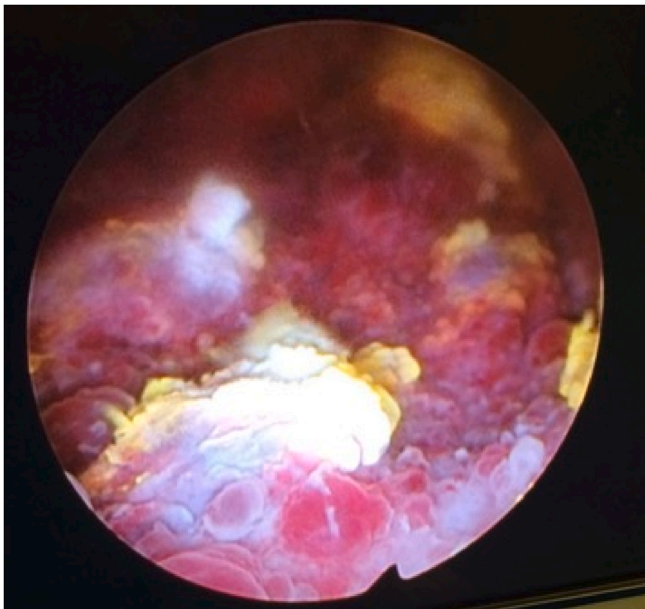


Fig. 2. Cystoscopy revealed suspicious changes covering most parts of the bladder and were macroscopic interpreted as MIBC, but initial histological examination revealed low grade Ta-tumor. Re-evaluation of the original histopathological specimen showed a idiopathic inflammatory condition.

as the initial cystoscopic findings indicated MIBC. However, histopathological examination revealed only low grade non-invasive changes which was in strong contrast to the suspected very invasive BC. The patient underwent multiple diagnostic procedures and several therapeutic approaches that could have been avoided if re-evaluation of the initial pathology had been performed earlier. This could have spared the patient for multiple invasive procedures with impact on quality of life.

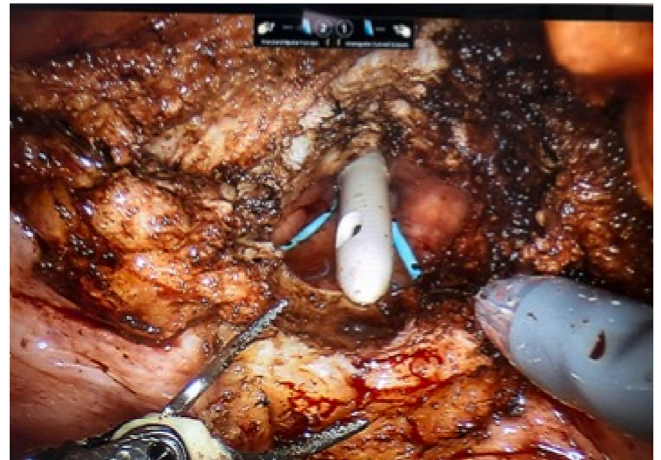


Fig. 3. The small fibrotic bladder was during the robotic assisted procedure opened with an incision in the midline reaching from near the neck of the bladder to close to ostium level. Figure is showing the contracted bladder during surgery with bilateral Selectip catheter and urethral catheter.

Inflammatory diseases of the bladder like interstitial cystitis are sometimes difficult to diagnose as it is a diagnosis of exclusion. It is often misdiagnosed for other conditions with similar symptom profile as it can be hard to distinguish.¹ Epithelial abnormalities are inconsistent ranging from discrete inflammatory or Hunner's lesions but they can be absent as well.^{1,2} The difficulties in diagnosis most likely derive from the various pathophysiology.³

The aetiology of inflammatory bladder diseases is hypothesized to be a multifaceted pathophysiology with heterogeneous causation and variable physical findings.⁴

As the cause of chronic inflammatory bladder conditions is still unclear, no specific cure is accessible. However, appropriate symptom relieving treatment is available with a variety of proposed treatment algorithms, including behavioural modifications, pain management, oral pharmacotherapy, intravesical therapy and neuromodulation.¹ Surgery will be required for patients that are severely symptomatic or unresponsive to conservative medical therapy.⁵

4. Conclusion

This case emphasises the importance of diagnostic accuracy as well as the potential value of reconsideration or recollecting information if things do not add up.

Declaration of competing interest

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