

Malakoplakia: A Rare cause of renal dysfunction, mimicking a renal tumour

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Introduction:

Malakoplakia is a very rare granulomatous disease of infectious aetiology. The name malakoplakia is derived from the Greek words “Malako” (soft) and “Plako” (plaque). It can involve multiple organs, most commonly the genitourinary tract. It is caused by abnormal macrophage and monocyte function. It usually presents in immune-compromised people. Below is a rare case of malakoplakia of the kidney in an immune-competent person.

Case:

A 49 years old lady presented feeling generally unwell with occasional vomiting, night sweats and subjective weight loss over two months. She did not have any other medical conditions and was not taking any medications. She was a smoker (15 cigarettes/day). Her examination was unremarkable. Urine dipstick showed 2+ protein. Bloods showed deranged renal function with a Creatinine level of 347umol/ L (no baseline reading available), Potassium of 7.2mmol/L, Haemoglobin 97g/L and WBC 15 x 10⁹/L, ESR 135mm/h and CRP 228mg/L. Immunology and myeloma screens were negative.

Hyperkalemia was medically managed and subsequently improved.

Ultrasound urinary tract showed a large and ill-defined mass lesion in the upper pole of the left kidney measuring at least 76 mm x 44 mm.

This was further investigated by a CT chest abdomen pelvis which showed left kidney almost entirely replaced by a tumour mass breaching the Gerota's fascia and invading the psoas posteriorly and the abdominal wall laterally. At the inferior aspect of Gerota's fascia nodules were seen, suspicious of malignant infiltration. Marked para-aortic lymphadenopathy was also noted.

The right kidney was hydronephrotic with hydroureter as far as the pelvic inlet.

A right-sided nephrostomy was done followed by ureteric stenting to treat hydronephrosis.

Patient was initially suspected of having a renal malignancy. For diagnosis confirmation a subsequent left kidney biopsy was performed. This showed an entirely different picture: the renal lesion was in fact found to be malakoplakia.

Based on the above, patient was started on antibiotics: Ciprofloxacin followed by Piperacillin-Tazobactam. With antibiotics, patient has improved clinically accompanied by improvement in infection markers and stabilisation of renal function.

Discussion:

Above is a rare case of a patient with a disease which has a relatively simple treatment but can mimic a much more sinister diagnosis. When involving the kidneys and urinary tract, misdiagnosis can lead to nephrectomy and other radical procedures. Hence it is imperative that this disease is recognised and treated appropriately.

Essential learning points from the above case are: firstly, not all renal masses are malignancies and tissue diagnosis is important; secondly, although more common in the immune-compromised, malakoplakia can also present in immune-competent patients. Thus it should be considered as a differential diagnosis when dealing with a renal mass.