

Exercise-induced ruptured renal tumour in a young patient with hereditary leiomyomata-associated renal cell carcinoma (HLRCC): a case report

ABSTRACT

Background: Hereditary leiomyomatosis-associated renal cell carcinoma (HLRCC) is rare with only 300 families reported to date worldwide. Despite highlighting renal malignancy, it is infamous for its cutaneous and leiomyomatosis component as the more common cause of presentation. This report is to highlight the rare presentation of HLRCC which occurs in a teenager which is unfortunately complicated with exercise-induced renal tumour rupture. **Case presentation:** A 22-year-old gentleman presented with severe right lower abdominal pain for 4 days, associated with fever and nausea following a session of strenuous exercise. He has first-degree relatives and second-degree relatives from his maternal side who were genetically tested positive for HLRCC. Clinical examination revealed a tender right lumbar and right iliac fossa region. A computed tomography of the kidneys demonstrated a ruptured right renal tumour with a large right renal subcapsular and contained right retroperitoneal hematoma. An emergency right radical nephrectomy was performed, and he recovered well. The histopathological examination was consistent with HLRCC associated ruptured right renal cell carcinoma. **Conclusion:** Identification of this underreported familial malignancy is paramount as the onset of neoplasia occurs much earlier in life. This necessitates screening of family members at a younger age, and the management is followed by life-long surveillance.

Keyword: Exercise; Leiomyoma; Renal cell carcinoma