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## Images in clinical medicine



### Radiological features of ankle synovial cell sarcoma

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Received: 05 Dec 2020 - Accepted: 04 Mar 2021 - Published: 23 Mar 2021

Keywords: Imaging, synovial sarcoma, ankle

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**Cite this article:** Jihane Habi et al. Radiological features of ankle synovial cell sarcoma. Pan African Medical Journal. 2021;38(301). 10.11604/pamj.2021.38.301.27274

Available online at: https://www.panafrican-med-journal.com//content/article/38/301/full

## Radiological features of ankle synovial cell sarcoma

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### **Image in medicine**

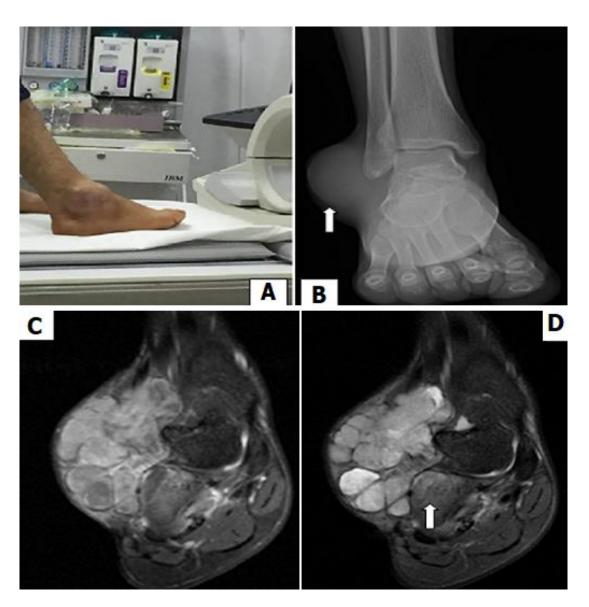
A 23-years-old man was referred to our institution to investigate a painless right ankle mass. The clinical examination found a painful mass, fixed on the superficial and deep plane with vascular turgor. It measured 15x10cm (A). The X-ray of the ankle was done first and revealed opacity centred on the soft external malleolar tissues (arrow B). Then a magnetic resonance imaging (MRI) was performed. showed multi lobulated mass heterogeneous enhancement after injection of gadolinium (C) and a specific triple signal in T2 weighted images (D), made by a hyper signal (liquid), intermediate signal (tumor tissue) and hypo signal (septa). This radiological finding reminds a "bowl of grapes". The extension to the

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carpal bones was diagnosed as a hyper signal area on T2 (arrow D). The diagnosis of synovial sarcoma was suggested and then confirmed by pathological analysis after performing a surgical biopsy. The patient has developed a metastatic location in the right thigh. Synovial sarcoma is a malignant mesenchymal tumor. It presents 10% of all ankle soft tumors, and affects young adults with a sex

ratio of 1. The lesion is often slow growing. On MRI, the synovial sarcoma diagnosis strongly suggestive by the classic "triple sign"; and "bowl of grapes sign" in T2 sequences. Its treatment is based on surgical excision adjunctive with chemotherapy or radiotherapy.



**Figure 1**: illustration of ankle synovial sarcoma (A); radiographic X-ray (B); magnetic resonance imaging (C, D)