

Dermatofibrosarcoma Protuberans

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Clinical Images

A 31-year-old woman presented to the emergency room for evaluation of a slow-growing, fumigating, and ulcerated mass in the left thigh (Figures 1 and 2). Computed Tomography (CT) (Figures 3 and 4) and Magnetic Resonance (MR) imaging (Figures 5 and 6) show a large, exophytic, heterogeneously enhancing mass with central necrosis. The mass originated from the skin and ulcerated through it. The mass closely approached the left gluteal musculature and fascia without invasion.



Figure 1: Ulcerated mass in the left thigh (Annotated).



Figure 2: Fumigating, and ulcerated mass in the left thigh (Non-annotated).



Figure 3: Magnetic resonance imaging (Annotated).

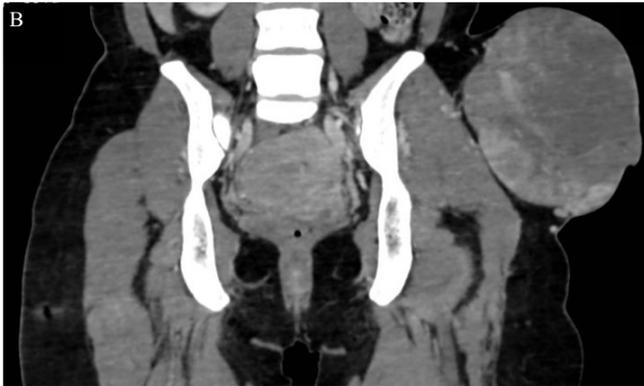


Figure 4: Magnetic resonance imaging (Non-annotated).

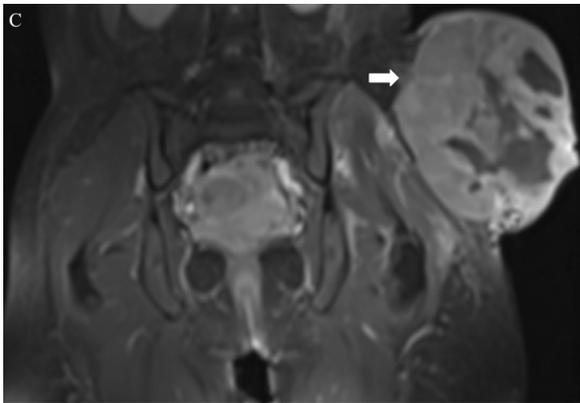


Figure 5: Large, exophytic, heterogeneously enhancing mass with central necrosis (Annotated).

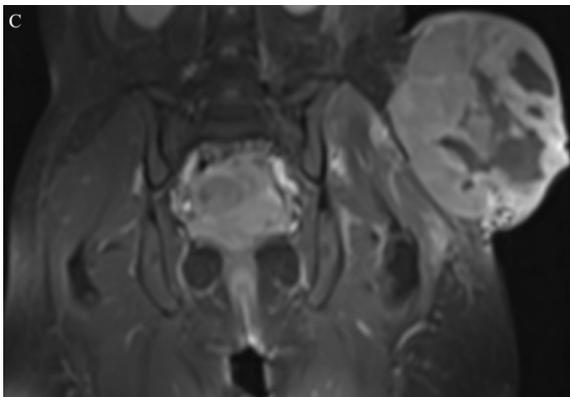


Figure 6: Large, exophytic, heterogeneously enhancing mass with central necrosis (Non-annotated).

After oncological staging workup, which was negative for metastases, the patient underwent surgical resection and placement of a large tissue graft. Final pathology of the mass was a dermatofibrosarcoma protuberans, or a fibrosarcoma arising in a dermatofibroma. This neoplasm is a slow-growing spindle cell tumor, which arises from the dermis layer of the skin, is very rare; it occurs in one case per million per year [1]. The most common anatomic sites of occurrence are the body wall, followed by the extremities and then the head and neck [1-3]. Because of its slow rate of growth, this tumor is commonly ignored and often left untreated for years [1].

CT and MR imaging are the best modalities to image dermatofibrosarcoma protuberans [1-3]. Both CT and MR depict the size and extent of the tumor as well as its anatomic relationship to the regional soft tissues, muscles, and bones. 3-D reconstructed images are valuable for pre-operative surgical planning. CT and MR imaging typically show a solitary, well-defined mass arising from the subcutaneous soft tissues [1]. This neoplasm will homogeneously enhance on both modalities; if larger than 5 cm, this tumor may have non-enhancing components due to necrosis and/or cystic degeneration [1-3].

The treatment of dermatofibrosarcoma protuberans is surgery; it has an excellent prognosis after complete resection may locally recur if adequate surgical resection margins are not obtained [1,2]. Prior to initiation of radiation therapy, the patient was lost to follow-up.

References

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