

## Post-Liposuction Paraspinal Desmoid Fibromatosis: First Case Report and Literature Review

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### ABSTRACT

Desmoid fibromatosis is a rare, slowly growing, locally aggressive mesenchymal tumor. It primarily affects young adult females with a female-to-male ratio of 2:1. It rarely affects children and elderly patients. Most desmoid fibromatoses arise in extra-abdominal locations, mainly, the extremities. We report the case of a 39-year-old female patient who presented with a lower back post-liposuction paraspinal desmoid fibromatosis. Lumbar spine magnetic resonance imaging (MRI) revealed a mass in the right paramedian area opposite to the level of L2, not infiltrating the underlying structures, with normal overlying subcutaneous tissue. Wide local excision with free margins was performed. Literature review revealed 97 cases of paraspinal desmoid fibromatosis. We extensively analyzed the clinical, radiological, and pathological features of these cases. Fibromatosis is a non-metastasizing, but locally aggressive slowly growing tumor currently classified by the World Health Organization (WHO) as a mesenchymal tumor of intermediate (borderline) malignancy. The exact cause of desmoid fibromatosis is not clear. It has been narratively linked to genetic abnormalities, trauma, steroid sex hormones, and bone malformations. The diagnosis of fibromatosis is challenging due to its ambiguous and pathological features. To the best of our knowledge, this is the first report of a post-liposuction paraspinal desmoid fibromatosis and is the first report of a paraspinal desmoid fibromatosis in the Arabian Gulf region. Universal guidelines for the management of desmoid fibromatosis are still lacking.

**Keywords:** Desmoid tumor, fibromatosis, mesenchymal tumor, liposuction, trauma.

*Bahrain Med Bull 2024; 46 (4): 2562-2579*

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