

## An Unusual Cause of Lower Back Pain

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Silicone products, in their solid form, have long been used for cosmetic applications within the body and are thought to be well tolerated, the most frequent complications being occasional sensitivity and encapsulation. In contrast, silicone oil injections may cause granulomas, stimulating the formation of an inflammatory nidus and promoting macrophage activation and migration. In the case of injection of so-called industrial silicone not approved for medical uses, complications may be even more serious and unexpected.

A 32-year-old woman presented with lower back pain for 2 months, radiating to both gluteal areas, which was associated with diffuse arthralgias, myalgias, and paresthesias of the lower extremities. She described the pain as continuous and dull, while unresponsive to nonsteroidal antiinflammatory drugs. The pain worsened with physical exertion and was slightly relieved with rest.

Examination revealed mild swelling, erythema, induration and tenderness of the gluteal regions, and absence of paravertebral muscle spasm. Serologic screen for elevated titers of acute-phase reactants and autoantibodies was unremarkable.

Magnetic resonance imaging of the lumbosacral spine and gluteal area showed bilateral hyperattenuated material in

droplets infiltrating the subcutaneous fat in the gluteal areas without extension into muscle (Figure 1). There was no hyperintensity on the fat-suppressed images of the globules themselves. Peripherally, in the subcutaneous fat, there was reactive high-signal, predominantly on the left side. High-signal in the inferior portion of the gluteus maximus muscle suggested fatty infiltration from atrophy or possible reactive focal myositis (Figure 2).

At followup, the patient admitted having undergone injection of industrial strength silicone by an unlicensed individual for aesthetic purposes, 4 months prior. She received a short course of prednisone with improvement in symptoms and physical findings.

Careless, unregulated injection of liquid silicone may cause skin discoloration, nodularity, induration, and ulcerations<sup>1</sup>. While early complications are more common and readily diagnosed, late ones are more challenging diagnostically, presenting with nonspecific complaints and involvement of juxtaposed anatomical structures<sup>2</sup>.

### REFERENCES

1. Allevato MA, Pastorale EP, Zamboni M, Kerdel F, Woscoff A. Complications following industrial liquid silicone injection. *Int J Dermatol* 1996;35:193-5.
2. Schwartzfarb EM, Hametti JM, Romanelli P, Ricotti C. Foreign body granuloma formation secondary to silicone injection. *Dermatol Online J* 2008;14:20.



Figure 1. Multiple foci of silicone in subcutaneous fat (arrows).

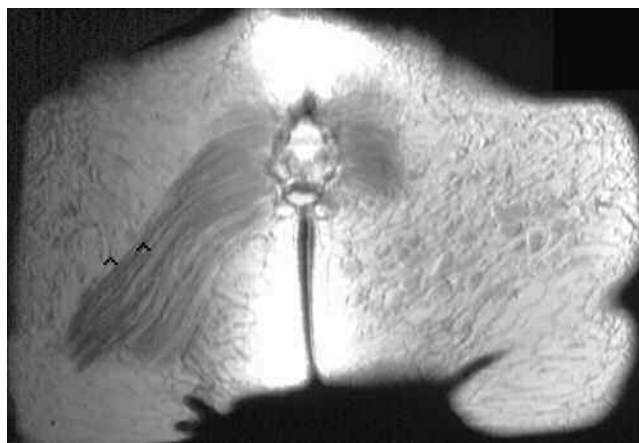


Figure 2. High-signal and atrophy of inferior portion of the gluteus maximus muscle, suggesting fatty infiltration from atrophy or possible focal myositis.