

## Immediate Massive Posttraumatic Pseudolipoma of the Buttocks: A Case of a Heterotopic “Love Handle”

Jocelyn C. Zajac, BS\*; Max Mandelbaum, BS\*; James M. Economides, MD†; Jerry W. Chao, MD\*

Sir,

**P**osttraumatic pseudolipoma refers to an unencapsulated fatty mass presenting after blunt trauma.<sup>1</sup> A leading hypothesis suggests their etiology as adipose tissue herniated through traumatic defects in the superficial fascial system or surrounding septa.<sup>1-3</sup> Others postulate that trauma and hematoma formation triggers inflammatory cascades that upregulate fat precursor cells to differentiate into mature adipocytes. They generally occur in areas of high adiposity such as the hip, thigh, or gluteal regions and have a 12-to-1 predilection for females.<sup>4,5</sup> The vast majority of pseudolipomas described in the existing literature note a delayed formation occurring months to years following trauma, with most developing after a mean of 2 years and reaching a modest size of under 10 cm.<sup>2</sup>

A 44-year-old male presented to our clinic with a massive soft-tissue mass that had manifested in the superior buttock immediately after falling from a bicycle 3 months prior (Fig. 1). The patient had concomitant traumatic injuries of the spine, and the buttock had been dismissed by his early treating physicians as hematoma and soft-tissue swelling. The mass failed to subside in size, interfered with routine tasks, and made wearing normal clothes challenging. It was accompanied by a notable concavity of the ipsilateral “love handle” region. A computed tomography scan showed a 30 cm accumulation of adipose tissue in the right buttock, consistent with translocation of fat from the lateral flank to the superior buttock. The patient underwent debulking of the site via suction-assisted lipectomy with significant improvement in contour and ability to accomplish daily functions at 3 months postoperatively (Fig. 2).

Normal adipose tissue is comprised of fat lobules contained within supportive fascial layers. The fascia prevents displacement of fat, but is elastic enough to allow for temporary alteration in shape to cushion deep structures when moderate external forces are applied. However, upon exposure to excessive mechanical force, the fascia is injured, and deep fat can then herniate through the fascial defects. This herniated tissue forms



**Fig. 1.** Preoperative photograph demonstrating posttraumatic pseudolipoma.



**Fig. 2.** Three months postoperative photograph after debulking via suction-assisted lipectomy.

From the \*Department of Surgery, Division of Plastic and Reconstructive Surgery, The George Washington University Hospital, Washington, D.C.; and †Department of Plastic and Reconstructive Surgery, MedStar Georgetown University Hospital, Washington, D.C.

Received for publication June 8, 2018; accepted June 13, 2018.

Copyright © 2018 The Authors. Published by Wolters Kluwer Health, Inc. on behalf of The American Society of Plastic Surgeons. This is an open access article distributed under the Creative Commons Attribution License 4.0 (CCBY), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Plast Reconstr Surg Glob Open 2018;6:e1887; doi:10.1097/GOX.0000000000001887; Published online 6 September 2018.

accumulations of normal fatty tissue from deep fat deposits in aberrant heterotopic locations.<sup>1-5</sup> The majority of previous reports describe a high-energy traumatic event leading to hematoma formation and a resulting latent period (several months to years) during which pseudolipoma formation occurs.

Aside from our patient's male sex, the immediate initial presentation lies in contrast to previous reports of identification of the pseudolipoma months to years after trauma. Whereas prevailing hypotheses point toward rents in fascia allowing progressive herniation of fat, this case is consistent with immediate degloving of

the fat from an adjacent anatomical structure, with heterotopic positioning through torn interlobular septa. In addition, the “donor” site deformity and amount of translocated tissue is unique from previous reports on a purely quantitative level. It remains our opinion that early diagnosis and management of posttraumatic fat herniation should remain in the armamentarium of any provider treating blunt trauma.

***Jerry Chao, MD***

Division of Plastic and Reconstructive Surgery  
The George Washington University Medical Faculty  
Associates  
2300 M Street NW, 6th Floor  
Washington, DC 20037  
Email: jwchao@mfa.gwu.edu

**DISCLOSURE**

*The authors have no financial interest to declare in relation to the content of this article. The Article Processing Charge was paid for by the authors.*

**REFERENCES**

1. David LR, DeFranzo A, Marks M, et al. Posttraumatic pseudolipoma. *J Trauma*. 1996;40:396–400.
2. Aust MC, Spies M, Kall S, et al. Lipomas after blunt soft tissue trauma: are they real? Analysis of 31 cases. *Br J Dermatol*. 2007;157:92–99.
3. Elshahy NI. Post-traumatic fatty deformities. *Eur J Plast Surg*. 1989;12:208–211.
4. Meggitt BF, Wilson JN. The battered buttock syndrome—fat fractures. A report on a group of traumatic lipomata. *Br J Surg*. 1972;59:165–169.
5. Signorini M, Campiglio GL. Posttraumatic lipomas: where do they really come from? *J Plast Reconstr Surg*. 1998;101:699–705.