

Pseudomonas Abscess at the Lateral Vastus Muscle

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Section: Musculoskeletal system

Case Type: Clinical Cases

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Patient: 29 years, male

Clinical History:

A 29 year-old man applied to our hospital with severe pain in his left thigh. He had fever; and there were swelling and even some discharge on the lateral aspect of his left proximal thigh.

Imaging Findings:

A 29 year-old man applied to our hospital with severe pain in his left thigh. He had fever; and there were swelling and even some discharge on the lateral aspect of his left proximal leg. He gave a story of a monthly period of his problems. There was a discharge at the lesion site, and that portion of the thigh showed definite swelling. The patient was sent to our department for an MR examination, which was performed with a 0.2T open scanner. His left thigh was examined with multiple sequences, the T1W scans being both before and after contrast administration. The MR findings were evident. There was a definite hyperintensity at the lateral aspect of the lateral vastus muscle at the STIR sequence; and this site was also intensely enhanced after contrast administration. The opening of the lesion to the tissue surface could well be demonstrated both at the STIR and contrast-enhanced T1 sequences. All clinical and MR findings pointed to some sort of an infectious problem; and a sample of the discharge was sent to the laboratory for a thorough examination. The result was crucial: pseudomonas infection. A proper antibiotic therapy regimen was utilized for the patient; and all the necessary precautions were taken for the hospital's well-being. The patient also had an extensive curettage surgery. He recovered fast; and after a month of intense care, he was sent back home. He is now under follow-up, and he is doing fine.

Discussion:

Pseudomonas is a gram-negative rod that belongs to the family of Pseudomonadaceae. These pathogens are widespread in nature, inhabiting soil, water, plants, animals, and humans. These are opportunistic pathogens, and may lead to infection in almost any part of the body, including of course, the soft tissues. Most psoas abscesses of the soft tissues are secondary, and they evoke potent and prolonged effects in the muscle tissues. Infection of the soft tissues initially leads to a generalized damage of the affected sites; and the pathologic process may then lead to an abscess formation. The abscess may occasionally open to the skin surface and a discharge may intervene. That was exactly what had happened in our case. The vastus lateralis muscle had been affected seriously, and the abscess was draining. The therapy may be very hard in these circumstances. High-dose proper antibiotic therapy was utilized in our patient, together with an extensive curettage of the wound site; and the patient did well. He is now under control, and doing fine.

Differential Diagnosis List: Pseudomonas Abscess of the Lateral Vastus Muscle

Final Diagnosis: Pseudomonas Abscess of the Lateral Vastus Muscle

References:

- Smith F. Pseudomonas infection. Nurs Times. 1994 Nov 16-22;90(46):55-6. (PMID: [7991401](#))
- Dalamaga M, Karmaniolas K, Chavelas C, Liatis S, Matekovits H, Migdalis I. Pseudomonas luteola cutaneous abscess and bacteremias in a previously healthy man. Scand J Infect Dis. 2004;36(6-7):495-7. (PMID: [15307597](#))
- Chen CH, Hsiu RH, Liu CE, Young TG. Pseudomonas putida bacteremia due to soft tissue infection contracted in a flooded area of central Taiwan: a case report. J Microbiol Immunol Infect. 2005 Aug;38(4):293-5. (PMID: [16118679](#))
- Atzori L, Ferreli C, Zucca M, Fanni D, Aste N. Facial cellulitis associated with Pseudomonas aeruginosa complicating ophthalmic herpes zoster. Dermatol Online J. 2004 Oct 15;10(2):20. (PMID: [15530310](#))
- Plotkin SA, Austrian R. Bacteremia caused by Pseudomonas sp. following the use of materials stored in solutions of a cationic surface-active agent. Am J Med Sci. 1958 Jun;235(6):621-7. (PMID: [13533422](#))
- Suzuki H, Ikezaki H, Chandiwalla R, Hong D, Rubinstein I. Effects of Pseudomonas aeruginosa endotoxin on vasodilatation in the intact spinotrapezius muscle. J Appl Physiol. 2001 Jul;91(1):351-6. (PMID: [11408451](#))
- el Hassani S, Echerrab el-M, Bensabbah R, Attaibi A, Kabiri H, Bourki K, et al. Primary psoas abscess. A review of 16 cases. Rev Rhum Engl Ed. 1998 Oct;65(10):555-9. (PMID: [9809358](#))
- Pseudomonas infection. <http://www.emedicine.com/med/topic1943.htm>.

Figure 1

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Description: This precontrast T1 axial view shows a faint hyperintensity at the lesion site, the lateral aspect of the lateral vastus muscle of the left thigh. **Origin:**

Figure 2

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Description: After contrast administration, the lesion site enhances. **Origin:**

Figure 3

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Description: Substantial hyperintensity resembling intramuscular fluid at the lesion site is clearly seen at this STIR axial image. **Origin:**

Figure 4

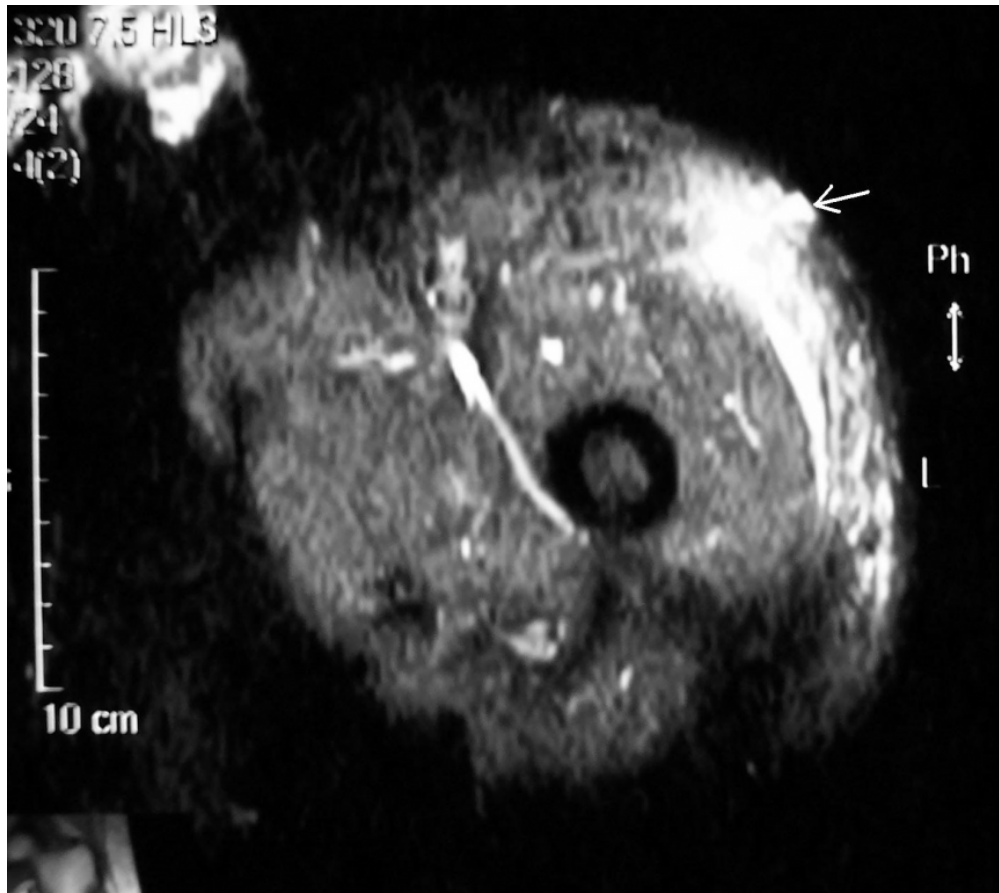
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Description: This post-gadolinium axial T1 scan demonstrates the opening of the lesion to the surface tissues. **Origin:**

Figure 5

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Description: This axial STIR sequence at the very same level demonstrates the lesion's opening to the surface in a more attracting manner. **Origin:**