Trochanteric area pain, the result of a quartet of bursal inflammation

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Abstract
Bursitis is quite responsive to therapeutic intervention, once the afflicted area is accurately identified. This is especially notable for some hip complaints. Patients’ use of the term “hip” can relate to anything from the low back to groin to lateral thigh pain [1-6]. The affected area is typically identified by where the patient points. Lateral thigh localization suggests involvement of bursae in the vicinity of the greater trochanter [7-15]. Pain on external rotation with abduction is highly suggestive of the diagnosis. Direct palpation of the greater trochanter is usually diagnostic, although slipping ilial-tibial band syndrome must be considered [15] and of course, the bursae may rarely be infected (e.g., tuberculosis) [16].

Non-operative orthopedics is a field in which results are typically expected in days (more commonly weeks or months) rather than producing the gratification of immediate and safe resolution of the problem that is so commonly the result of surgical intervention. One diagnosis that I find especially rewarding is that of involvement of peri-trochanteric bursae in individuals with “hip” pain. Such pathology has a female predominance. It is present unilaterally in 15% of women, 8.5% of men; bilaterally, in 6.6% of women, 1.9% of men [17,18]. It is rewarding to both physician and patient, as it is especially responsive to injection of the appropriate bursae with triamcinolone and lidocaine [19-23]. The lidocaine gives immediate relief of patient symptoms, confirming the diagnosis, while the
decision to inject all four bursae is made with triamcinolone and lidocaine.

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HIP PAIN
Bursitis is quite responsive to therapeutic intervention, once the afflicted area is accurately identified. This is especially notable for some hip complaints. Patients’ use of the term “hip” can relate to anything from the low back to groin to lateral thigh pain [1-6]. The affected area is typically identified by where the patient points. Lateral thigh localization suggests involvement of bursae in the vicinity of the greater trochanter [7-15]. Pain on external rotation with abduction is highly suggestive of the diagnosis. Direct palpation of the greater trochanter is usually diagnostic, although slipping ilial-tibial band syndrome must be considered [15] and of course, the bursae may rarely be infected (e.g., tuberculosis) [16].

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triamcinolone provides lasting relief. It is performed with a 22 gauge spinal (3-1/2 inch) needle and is sometimes performed under radiological guidance. This injection provides a depot corticosteroid effect, in contrast to the time-limited effect of dexamethasone, whose water solubility results in rapid systemic, rather than localized distribution. Passive movement of the hip through full range of motion subsequent to injection is critical to assure mobilization of the steroid throughout the bursae. This intervention is usually effective, even when it is a post-surgical event or in the presence of a leg length discrepancy, although presence of lower extremity osteoarthritis reduces effectiveness.

A recent article questioned the efficacy of such injection therapy. However, the identified treatment approach was flawed in its injection of only one or two bursae(e), a common approach. I too found disappointing results with that approach. However, there are actually four significant bursae in that location: gluteus medius, gluteus minimus, subgluteus medius and subgluteus minimus bursa.

Retrospective assessment of the last 50 individuals in my practice in whom all four bursae were injected revealed immediate elimination of pain in 49. Pain relief persisted more than 6 mo in 47 individuals. Two individuals had recurrent “hip” pain 3 mo after the initial injections. Their pain responded to repeat injection of the four bursae and they have been pain free since. Involvement of bursae was often (30 instances) bilateral. Because of insurance company limitations, unilateral injections were initially performed, with plan to inject the contralateral the following week. An unexpected observation was resolution of pain in the contralateral bursa, as well as in those injected. Given the effect of bursitis on gait, perhaps injection of the most symptomatic side eliminated the mechanical effect of altered gait. That may have allowed the contralateral side to heal. A systematic effect of the injected depot corticosteroid is unlikely, as injection of the above-named peri-trochanteric bursae did not affect concurrent anserine bursitis (which itself is extremely responsive to injection of a depot corticosteroid), nor did it affect concurrent bicipital or supraspinatus tendinitis. As injection of all four bursae is so effective, the role for diagnostic studies (e.g., magnetic resonance imaging) seems an unnecessary expense.

It is intriguing that so many exotic approaches (e.g., shock wave therapy and even surgery) to this problem have been pursued, when a simple injection approach is so frequently and fully effective. Non-steroidal anti-inflammatory drugs may reduce discomfort, but have significant systemic effects and do not resolve the underlying inflammation. Injection of only one or two of the four bursae results in partial, but statistically significant pain relief. Comparison with elimination of pain in 98% of afflicted individuals by injection of all four bursae suggests the latter provides a greater opportunity for clinical benefit. The term trochanteric bursitis suggests that the inflammation is more focal than what is clinically observed. While easier to express, perhaps it is time to refer to inflammation in this area, naming all four affected bursae (i.e., gluteus medius, gluteus minimus, subgluteus medius and subgluteus minimus bursa).

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