Anterior Thigh Pain or Tenderness

To the Editor.—In the April issue of the Archives, Louria et al reported on anterior thigh pain or tenderness as a diagnostic manifestation of bacteremia. We recently encountered a similar case, which we believe may cast light on the pathogenesis of such pain.

A 51-year-old woman was admitted complaining of fever, malaise, nausea, and myalgia of recent onset. She had undergone mitral valve replacement 16 years earlier and was receiving oral anticoagulants. Physical examination revealed an acutely ill woman with a temperature of 38°C. Blood pressure was 90/55 mm Hg, heart rate was 92 beats per minute, and a 2/6 murmur was heard over the precordium. Results of the rest of the examination, including funduscopy, were unremarkable. Laboratory findings showed a white blood cell count of 16,500/cu mm, with 85% polymorphonuclear cells; erythrocyte sedimentation rate (Westergren) was 25 mm/hr, and serum lactate dehydrogenase level was 600 IU/L (normal, 220 IU/L). On the following day, the patient developed recurrent chills, and her temperature rose to 39°C. She complained of severe pain in the lower abdomen and anterior aspects of both thighs, which prevented her from moving, but examination was unremarkable. Serum creatinine phosphokinase and aldolase levels and electromyography were all normal. A presumptive diagnosis of infective endocarditis was made. Six blood cultures were taken, and treatment with penicillin G and gentamicin was started. On the sixth day of hospitalization, small hematomas with central induration appeared over the lower abdomen and both thighs, and small, hard, tender nodules could be felt under the hematomas. Thereafter, the pain and tenderness receded slowly. Five blood cultures were positive for Haemophilus parainfluenzae, and the penicillin was replaced with ampicillin. The patient was treated for six weeks with full recovery.

Louria et al stated that “The mechanism for the anterior thigh tenderness and/or pain is not known; no biopsies have been performed ...” Churchill et al reported a case of bacterial endocarditis with myalgia in which a biopsy specimen of a painful and tender but otherwise normal forearm extensor muscle showed a small focus of destruction of muscle fibers and infiltration with polymorphonuclear leukocytes. They believed that this was a result of an embolus lodged in a small muscular artery or arteriole. We also believe that the muscle pain results from septic emboli in small blood vessels supplying the muscle. Pain in anterior thigh, lower abdominal, or other muscles together with signs of a systemic infection may raise the possibility of a bacteremia or septicemia, and H parainfluenzae may now be added to the list of organisms mentioned by Louria et al that may cause this phenomenon.

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In Reply.—The case reported by Drs Klotstein and Shilo is very interesting indeed. I believe it is somewhat different from the cases we reported in that any obvious local thigh lesions were not noted in any of our cases. None of our patients appeared to have suffered from endocarditis, but I have seen cases of relapsing endocarditis in which the major clinical manifestation was bilateral anterior thigh pain; no focal thigh lesions developed in these patients and the pain and tenderness disappeared on reinstitution of therapy.

As more data accumulate, it will be interesting to see what proportion of those patients with endocarditis in whom thigh pain and/or tenderness develop will manifest the syndrome we described, and what percentage will show the intriguing focal lesions described by Drs Klotstein and Shilo.

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Increased Plasma Atrial Natriuretic Polypeptide In Patients With Severe Essential Hypertension and Its Decline With Antihypertensive Therapy With Nifedipine

To the Editor.—Mammalian cardiac atria contain biologically active peptide hormones that are capable of producing diuresis, natriuresis, and vasodilation. Recently, we have shown that plasma levels of atrial natriuretic polypeptide (ANP) is significantly higher in spontaneously hypertensive rats at 20 weeks of age (blood pressure, 184 ± 7 mm Hg) than values observed in age-matched normotensive Kyoto-Wistar strain rats (blood pressure, 114 ± 5 mm Hg).

A recently developed radioimmunoassay has permitted us to measure...