

“Geographic Diseases” In Medscape General Medicine (Medgenmed) Features a Tropical Infection Rarely Seen In USA

Debut of new series with unusual teaching cases shows an American doctor in Kenya treating pyomyositis by draining six liters of pus

New York, NY (September 29, 2003) – “Geographic Diseases,” a new section in Medscape General Medicine (www.medgenmed.com) about diagnoses and treatments of diseases American doctors rarely see, recently launched with a case of tropical pyomyositis, a purulent infection of skeletal muscle that can present a confusing diagnostic problem, particularly for physicians without experience in the tropics.

Dr. Jon F. Fielder, an American doctor in Kenya, was faced with some unique challenges in diagnosing a 65-year-old woman with a severely swollen and painful left thigh. Her treatment required extensive pus drainage followed by 10 days of intravenous cloxacillin and three weeks of oral dicloxacillin. His experience kicks off the new section.

Each month *MedGenMed's* “Geographic Diseases” will present an unusual medical case of a full-blown untreated disease that U.S. based physicians would rarely observe. Written by doctors practicing in the developing world, their medical experiences are often about patients who have not received diagnostic or therapeutic interventions in the early stages of a disorder and who show symptoms that are only present when the disease process is very far along.

“We think it is important for physicians -- who may never see patients with certain diseases -- to gain a perspective of the global medical community by reading about the unusual experiences of doctors working in more geographically remote areas often without adequate resources,” said George D. Lundberg, MD, Editor, *MedGenMed*. “This unique sharing of information will also educate and potentially improve diagnostic acumen and expand pathology knowledge.”

The Medical Case

The series begins with Dr. Fielder's patient being admitted to Kijabe Mission Hospital, a 205-bed facility staffed by missionaries and Kenyans and where he is a consulting physician. The center serves as a teaching hospital and referral center for the region in Kenya's central highlands, drawing the sick from as far away as Mogadishu, Somalia. The doctor's patient told him that 10 years ago she was assaulted and suffered a blunt injury to her left thigh. Over the years she had pain the hip and mild swelling of the thigh that worsened in a recent two-month period. Her massively swollen thigh became hot and tender in the two weeks preceding her entering the hospital.

And yet the woman reported no fever and her exam showed no cardiac murmur or evidence of any blood vessel obstruction. After a hip and femur X-ray, a bone

window that did not reveal inflammation of the bone marrow and adjacent bone, and a normal white blood cell count, Dr. Fielder's initial medical diagnosis included such possibilities as cellulites, septic arthritis, and deep venous thrombosis.

However, due to her previous leg trauma, that went untreated, along with the tropical location (Kenya), skin changes, and the spontaneous nature of the presentation, he concluded that she was suffering from tropical pyomyositis -- a disease that is rarely seen in temperate climates but is common in Africa and Asia and also occurs in Central and South America as well as the Caribbean.

"Treatment involves drainage of the purulent collection and antimicrobial therapy directed at the responsible pathogen," wrote Dr. Fielder, noting that the organism was most likely *Staphylococcus aureus*, the most common pyogenic bacteria.

At surgery, six liters of pus was drained under pressure --an unusually large amount, given that previous medical literature on pyomyositis described a maximum of five liters -- from below the skin in the fascial space. The patient was given treatments of intravenous cloxacillin and oral dicloxacillin -- a pair of antimicrobial agents effective against penicillin-resistant staphylococci.

"In our resource-poor setting, prolonged courses of intravenous therapy are often prohibitively expensive or impractical because of difficulties with venous access," noted Dr. Fielder who said the patient was discharged with an open wound but readmitted following a pathologic fracture of the femur. That wound site looked clean and she required a prolonged hospital stay before leaving in stable condition, Dr. Fielder added.

As for the pathogenesis of pyomyositis, the mechanism by which bacteria establish infection in muscle and the reasons for the predominance of such infections in the tropics remains unknown, according to Hunter's Tropical Medicine and Emerging Infectious Diseases (8th edition, WB Saunders, 2000: 390-391). Staphylococci and other pyogenic bacteria infect people throughout the world, but these bacteria rarely infect normal skeletal muscle in patients outside the tropics, even during bacteremia.

Note: To view this article with photographs and Web enhancements, go to: <http://www.medscape.com/viewarticle/460191>.

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