CLINICAL VIGNETTE

Psoriasis – What's Next?

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A 41-year-old male presented to rheumatology for evaluation of low back pain. When he was 27, he noticed a dry spot on his shin. Over the years he developed more of these spots on his back, knees, and elbows. His nails also began to peel and split. He was diagnosed with psoriasis and prescribed different creams. By his 33rd birthday, more areas were involved with increased itching. Methotrexate was added to his regimen when more than 30% of his skin was involved with psoriasis. Methotrexate greatly reduced his skin involvement and he was able to work without constantly scratching and discomfort.

He also noticed lower back soreness and stiffness when he awakened. It would improve during the day but worsen by evening. The pain was mid-lower back, nonradiating, and of moderate intensity. It did not prevent him from his activities of daily living and was not associated with leg numbness, tingling or weakness. He attributed the back pain to his construction job. He had seen a chiropractor and would take ibuprofen on bad days with some relief. The pain was worse inactive, better with activity. He also developed pain in his left knee and hands, with occasional hand swelling.

His medical history included hypertension, elevated cholesterol and prediabetes and he was previously advised to lose weight without success. His review of systems was remarkable for poor sleep due to increasing pain, moderate occipital headaches which were occasionally associated with dizziness. He also reported difficulty with neck extension, occasional eye redness but no change in vision.

He was a non-smoker and stopped drinking any alcohol when he started methotrexate. His medication list included methotrexate 10 mg weekly, daily folic acid 1 mg, lisinopril-hydrochlorothiazide, and amitriptyline as well as prn ibuprofen and topical triamcinolone. Family history was remarkable for his father having psoriatic arthritis, diabetes, and coronary artery disease and a paternal male cousin who had psoriatic skin disease and was over weight.

On physical exam, he weighed 212 pounds with BMI 37.8, blood pressure 152/92, HR 92. Positive findings include pitting, splinter hemorrhages and furrows of his nails and psoriatic plaques covering 10% of his body. His joint exam was remarkable for restricted ROM of cervical and lumbar spine, a small left knee effusion, swelling of left 3rd and 4th PIPs, right index finger DIP, and sausage swelling of left third and fourth left toes and second right toe. There was purplish skin discoloration overlying involved joints.

Laboratory results included normal complete blood count, chemistries, rheumatoid factor, antinuclear antibody, and urinalysis. Abnormal results included an elevated sedimentation rate of 30 mm/hr, C-reactive protein 10 (normal being under 8.0), A1C 5.9%, fasting glucose of 132, cholesterol 200, and LDL 105. HLA-B27 was present. Left knee synovial fluid was inflammatory with negative culture. X-rays showed bilateral sacro-iliitis and periostitis of clinically involved finger and toe joints. Given his father's history, the patient felt he had psoriatic arthritis and wondered what else he could expect.

Psoriatic arthritis was first confused with rheumatoid arthritis. The root of the word is Greek "psora" for "to itch." Hippocrates first suggested using tar for the skin lesions. He also recommended the use of arsenic. The physician Galen was the first to call it psoriasis. It was initially confused with leprosy. It was not until the 1840s when the father of dermatology, Ferdinand von Hebra, reported that psoriasis was different from leprosy. Writings in the 1960s by V. Wright differentiated psoriatic arthritis from rheumatoid arthritis.[1] Wright and Moll eventually reported five different subtypes of psoriatic arthritis.[2]

Psoriatic arthritis is more likely to develop in patients who have nail involvement accompanying their psoriasis and is less often seen in psoriatic patients without nail involvement. The degree of skin involvement does not necessarily correlate with risk of developing musculoskeletal disease. The arthritis generally develops after skin psoriasis has been present. Occasionally, the skin and arthritis can manifest concurrently and rarely, the arthritis can present before skin lesions. One study, found smoking protective to the development of psoriatic arthritis. Men and women with psoriasis have equal risk of psoriatic arthritis. Prevalence of psoriatic arthritis in patient with psoriasis ranges from 4 to 30%.[3]

Psoriasis has increased associations with several conditions including obesity, metabolic syndrome, depression, coronary artery disease, cancers, and others.[4] A meta-analysis of studies between 1980 and 2012 found an increase prevalence of obesity in psoriasis. Correlation between severity of skin lesions and the magnitude of obesity has also been reported.[5] The relationship between psoriasis and metabolic syndrome is a related

finding. These patients would also be at greater risk for cardiovascular, atherosclerotic, and cerebral vascular disease.[6,7]

Several studies have found psoriasis patients at slight increase risk for certain cancers including: Hodgkin lymphoma, cutaneous T cell lymphoma, nonmelanoma skin cancer, and pancreatic cancer.[8,9]

This patient was counseled regarding his risks of reversible joint damage without treatment as well as to his increased risk of comorbid conditions. Adalamumab was started and methotrexate was increased. He was referred to a cardiologist, nutritionalist, and endocrinologist for aggressive approaches to his elevated BMI, hypertension, hypercholesterolemia, and hyperglycemia. Learning of his increased risk of certain skin cancers, he resolved to be more compliant with visits to his dermatologist.

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