Differential Diagnosis and Systemic Lupus Erythematosus

By Nancy Martin-Molina, DC, QME, MBA, CCSP and Richard Molina, DC

An Asian female, 25, presented with a chief complaint of pain and swelling in her right hand; onset was three months ago and etiology unknown. She reported going to her medical generalist and her internist for this condition. There were associated symptoms of anorexia with recent weight loss, suggestive of endocrine metabolic disorder.¹

Temporary, mild pain reduction was achieved though the use of a nonsteroidal anti-inflammatory drug (Advil).¹² There was an unknown current treatment for hypertension, which had been diagnosed one year ago. This was considered unusual for the patient’s age, and presented the possible consideration of a contributing renal (vascular) disease or infectious response.⁸

The patient denied cigarette smoking and alcoholic consumption. The patient’s mother was deceased, at an unknown age, secondary to an unknown renal pathology. This led to the speculation of a possible genetic base.¹ Two recent disturbances were revealed by a review of systems analysis; shortness of breath, and abdominal pain. Both symptoms required further investigation, even if the abdominal symptoms were simply reflective of general malaise or the side-effects of medication.¹

The patient presented as normal-tensive,⁶ yet with a noteworthy diastolic blood pressure of 90 mm Hg, which suggested the need to monitor her blood pressure (per the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure).⁹ The pulse was within normal limits⁹ but irregular, which suggested some type of cardiac disturbance. The patient was febrile, just on the high end of normal, according to one source’s recommended range (95-99.5 degrees.)⁹

Additional research suggested that the NSAID might have been masking the fever.⁹,¹² Respirations were normal. Splinter hemorrhages were present, but considered nonspecific, since these may occur with minor trauma and without apparent cause.⁹ Later research did reveal that this cutaneous manifestation was present in this particular disease.⁶ Oral ulcerations with pale mucus membranes were charted, which could have been secondary to infection or the vasoconstrictive nature of fever.⁶,⁹ There was no evidence of jaundice. No evidence of a butterfly rash was charted that could have been suggestive of a connective tissue disorder,
birth marking, UV environmental exposure or allergen.9

There was bilateral decreased air flow and decreased chest expansion on inspiration that could have been indicative of increased rigidity of lung tissue and airway resistance, suggestive of a pulmonary associated component, e.g., pleurisy or pleural effusions.3 A pansystolic murmur was charted and is considered pathological in nature,9 with the location of auscultation at the apex confirming a mitral value closure failure.9 The pain site was swollen at the proximal intraphalangeal joint; the distal intraphalangeal joint was tender and had limited range of motion, suggesting a vascular, autoimmune or inflammatory response mechanism.1 This response, being unilateral, may have been represented as the patient’s dominate limb. "Cotton wool spots" were present, which signifies a retinal change possibly secondary to hypertension, according to the Keith-Wagner Classification, KW3.6 Later research revealed that these spots may have been represented as, “degeneration of nerve fibers due to occlusion of the retinal blood vessels” (6;605).

A diagnostic differential impression of autoimmune disorder, systemic lupus erythematosus, was established in accordance to the methodology taught by all accredited chiropractic schools. The chiropractors initially formulated this working hypothesis using the mnemonic "VINDICATE"1 (vascular; inflammatory; neoplastic; degenerative; intoxication; congenital; allergic [and autoimmune]; traumatic; and endocrine [and metabolic]). The theory was that to formulate a list of diagnostic possibilities or impressions, one could analyze the symptoms in accordance to the etiological categories. Since multiple organ systems appeared to be affected, the only remaining probable categories were vascular and autoimmune. The next step involved associating signs and symptoms with certain diseases that fit those categories.

Systemic lupus erythematosus (SLE) is not uncommon. Differential diagnosis must exclude diseases that may present in a similar manner: these excluded rheumatoid arthritis, scleroderma or mixed connective tissue disease.2 Certain medications such as procainamide (a cardiac antirhythmic agent) and hydralazine (an antihypertensive diuretic agent)12 can lead to a significant drug-induced lupus-like syndrome.

According to Kelley, SLE was recognized in 1872 by Kaposi,4 but it wasn’t until 1948 with the emergence of sensitive laboratory testing that the spectrum of the disease changed dramatically. Milder forms of the disease expression were recognized.4 The clinical presentation for SLE was so vast that the American Rheumatism Association also established criteria for its diagnosis.8
For a patient to have SLE, the patient must possess any four or more of 11 criteria. My patient exhibited pain and peripheral joint swelling (nonerosive arthritis); butterfly (malar) rash; oral ulcers; pale mucus membranes (probable anemia); and serositis (probable pleural effusion). Confirmatory laboratory diagnosis and diagnostic chest x-rays are required for the latter two characteristics. (Check with your individual state boards regarding the legal scope of practice for licensed chiropractic doctors. In California, the scope provides for them to order laboratory diagnostics and chest x-rays.)

A word of recommendation: If you are unfamiliar with the standards of interpreting or procuring a chest x-ray, then a referral to an outside diagnostic facility is indicated. Your findings of SLE would indicate a mutual cooperative referral is indicated. A referral note is generated on the patient’s behalf to the medical generalist, briefly listing the reason for the referral, your specific diagnostic findings, what type of tests or specialty referral is still indicated. (If your patient is governed by a specific insurance, check with the company’s members’ services to determine a local outpatient diagnostic center or area specialist. Our office offers a direct referral. Once a differential diagnosis is confirmed, a cooperative referral is made for additional testing or specialty referral or requirements, such as EKG. Be sure to include photocopies of any diagnostic testing.)

A mutual, cooperative referral is considered for the patient’s benefit regarding medical management while the doctor of chiropractic continues to focus on his or her area of specialty, i.e., neuromusculoskeletal findings involving the spine and right upper limb.

The incidence of SLE is mostly within females between 20-40 years of childbearing age, but it can occur at any age. As with other autoimmune diseases, antibodies exist without any invading organism and attack the body’s own healthy tissues. Antinuclear antibodies (ANA) directed against nuclear antigens such as DNA and RNA are present in the patient’s blood. Their formation suggests a probable mechanism for this disorder. ANA reacts with the nuclei of damaged cells; these cells become LE bodies that are later phagocytized by neutrophils and macrophages to form LE cells. The demonstration of these LE cells involves microscopic examination of the white blood cells (WBC) in vitro. The LE test is positive in up to 70 percent of all patients diagnosed with SLE.

The causative factors of SLE are unknown, but in immunology it is clear that the immune system is capable of responding to itself, but learns not to. Whenever tolerance breaks down, autoimmune disease may
result. The laboratory tests that contribute to the SLE diagnosis include: a chest x-ray for evidence of pleural effusion and complete blood count for evidence of thrombocytopenia and anemia (hemolytic). The serum creatine level would be high in advanced renal disease; it is unlikely that our patient had progressed to such a state. Microscopy for LE cells in WBC will indicate its presence for SLE; an antinuclear antibody test should demonstrate positive. An electrocardiogram would demonstrate probable myocarditis, since the cardiac values in one half of the patients with SLE are affected. Affliction is generally secondary to Libman-Sacks endocarditis, which will induce valve failure mechanisms.

The course of SLE is variable and unpredictable. Disease exacerbations are generally treated within the medical community by corticosteroid and immunosuppresion drugs. Most common causes of death are renal failure and recurrent infections.

While today it is commonly recognized that there sometimes can be enormous repercussions from the use of certain drugs, our hats go off to the medical rheumatologist that worked hand-in-hand with our office and determined the patient suffered from drug-induced lupus. (In drug-induced lupus, often no butterfly rash is observed). Six months after her initial chiropractic consultation, the patient is back to all of her normal activities and is asymptomatic for the right-hand pain.

Spinal manipulation offers rapid symptomatic relief to many patients with associated SLE. Specific adjusting should be directed at the dysfunctional joints above and below the defect to reduce the pain and disability in SLE patients.

We have been blessed with wide success in treating our patients, many of whom were beleaguered by frustrating diseases. How chiropractic continues to treat the "medical failures" may ultimately provide the key to the chiropractic enigma.

References

● Harvey and Bardley. Differential Diagnosis, Interpretation of Clinical Evidence. WB Saunders. 1970;
843-4.

- Schroeder. Current Medical Diagnosis and Treatment. Lange Medical. 1986; 201, 505-7.
- Schaechter. Mechanisms Microbial Disease. 103-4.

Nancy Molina, DC
Richard Molina, DC
San Juan Capistrano, California

Click here for previous articles by Nancy Martin-Molina, DC, QME, MBA, CCSP.

Page printed from: