IVIG Is Safe, Effective for Scleromyxedema Lesions

BY MIRIAM E. TUCKER

Baltimore — Intravenous immunoglobulin appears to be a safe and effective treatment for scleromyxedema. Dr. Francesco Boin said at a conference on rheumatic diseases sponsored by the Johns Hopkins University.

Scleromyxedema is a rare—though probably underrecognized—disorder that mimics scleroderma. It is characterized by widespread thickened skin and multisystem disease caused by mucinous deposition in the skin and internal organs. It has been described worldwide, with males and females equally affected, and both black and white patients reported in the United States. Mean age of diagnosis is about 55 years, ranging from 10 to 80.

Patients typically present with waxy, bumpy skin, initially in palms but becoming confluent and generalized and eventually thickened and pendulous. Skin changes behind the ears are almost always present. “The buzzword is the ear... It’s a very important spot to check if you’re suspicious for this entity,” said Dr. Boin, of the division of rheumatology at Johns Hopkins.

The patient’s face will often have a “leonine” appearance. The hands may appear scleroderma-like, with flexion contractures of the fingers. Some patients have microstomia.

Findings from an incisonal biopsy will show a distinct infiltrative process with massive amounts of mucin deposition. Patients will have a low-level monoclonal gammapathy, with no specific distribution of subtype. As with most fibrosing skin disorders, punch biopsy is not generally helpful in the diagnosis and is often not necessary.

Aside from the skin, scleromyxedema affects the neurologic, hematologic, gastrointestinal, and cardiopulmonary systems. Neurologic symptoms may include encephalopathy, seizures, stroke, psychosis, aphasia, gait disturbance, vertigo, and tinnitus. Cardiopulmonary involvement includes pulmonary hypertension in approximately 50% of patients, as well as pericardial effusion. Gastrointestinal symptoms include dysphagia and esophageal dysmotility. Dr. Boin said.

Less commonly, some scleromyxedema patients will experience proximal muscle weakness or frank myopathy, with biopsy showing inflammation, atrophy, necrosis, and mucin deposition.

Without treatment, progressive disease and a poor prognosis are typical. Currently, there is no approved therapeutic agent for treatment, and few available long-term data. Treatments that have been investigated in small studies include thalidomide, cyclopamine, autologous stem cell transplants, prednisone, isotretinoin, intravenous immunoglobulin (IVIG), dermabration, extracorporeal phototheraphy, radiation therapy, plasmapheresis, and psoralen-ultraviolet light therapy.

Findings from a review of nine scleromyxedema patients who were referred to The Scleroderma Center at Johns Hopkins between 1996 and 2007 showed the mean patient age at diagnosis was 53.6 years (range 39-75), and the mean disease duration was 55 years (range 10-80). Patients typically present with waxy, bumpy skin, initially in palms but becoming confluent and generalized and eventually thickened and pendulous. Skin changes behind the ears are almost always present. “The buzzword is the ear... It’s a very important spot to check if you’re suspicious for this entity,” said Dr. Boin, of the division of rheumatology at Johns Hopkins.

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Dr. Boin’s Hopkins associates Dr. Laura K. Hammes and Dr. Frederick M. Wigley reported in a poster at the 2005 American College of Rheumatology meeting.

Four of the patients with severe symptomatic skin involvement were treated with IVIG at a dose of 2 g/kg daily for 5 days. All patients tolerated the full course of IVIG, and all experienced dramatic improvement in their popular mucinosis skin lesions. Of these four, one also experienced rapid resolution of severe neurologic involvement after just one IVIG course, and another received six monthly treatments and continued without flare 4 months later.

The other two patients, followed for 31 and 34 months, respectively, postinital treatment, both responded to six monthly treatments, relapsed after 4 months, and are now continuing to respond to low-dose infusions at regular intervals—every 4-6 weeks in one patient, every 8 weeks in the other—to maintain control. Indeed, while IVIG appears to produce dramatic and rapid response, “with a softening in a matter of days,” it may be necessary to continue therapy long term, he noted.

One scleromyxedema patient received IVIG 2 g/kg once monthly for 6 months and then every 8 weeks for 1 year.