Transcript Details

This is a transcript of a continuing medical education (CME) activity. Additional media formats for the activity and full activity details (including sponsor and supporter, disclosures, and instructions for claiming credit) are available by visiting:
https://reachmd.com/programs/cme/diagnostic-advances-in-gmg-effective-tools-and-techniques/32727/

Released: 04/02/2025
Valid until: 04/02/2026
Time needed to complete: 58m

ReachMD
www.reachmd.com
info@reachmd.com
(866) 423-7849

Diagnostic Advances in gMG: Effective Tools and Techniques

Announcer:
Welcome to CME on ReachMD. This activity is provided by Prova Education. This episode is part of our MinuteCE curriculum.

Prior to beginning the activity, please be sure to review the faculty and commercial support disclosure statements as well as the learning objectives.

Dr. Bril:
This is CME on ReachMD, and I'm Dr. Vera Bril. Here with me today is Dr. Hans Katzberg. Let's get right into today's topic. There are a number of very useful diagnostic tests that help solidify a diagnosis of GMG. Could you describe these for our learners?

Dr. Katzberg:
Certainly. Thank you, Dr. Bril. So I think one of the point-of-care tests that can be done by neurologists and electrophysiologists are tests such as repetitive nerve stimulation. These are electrical tests where you stimulate nerves that can be affected early in myasthenia gravis and result in a decrement that can be seen in the recording electrodes that are seen that are akin to the fatigue that one sees clinically. And this can be identified by doing these tests even early on in the disease and can be supplemented by needle tests, a needle electromyography test, specifically single-fiber EMG, looking at muscle fiber pairs and looking at the inefficient transmission of the nerve to muscle signal that can indicate that there's a problem with the neuromuscular junction.

In addition, there's serologic markers. So there's blood tests that we can do to identify the pathogenic antibodies that are implicated in myasthenia. Acetylcholine receptor antibodies are the most common, and there's also MuSK antibodies and LRP4 antibodies that are more rare. These can take some time to come back. And as such, the electrical tests are often done in conjunction with the serological tests together to confirm the diagnosis.

Given that myasthenia is associated with thymic pathology in many cases, particularly the acetylcholine receptor antibody patients, thymic imaging, or imaging that includes the mediastinum where the thymus is located, it's also important to identify any possible enlargement of the thymus or a hyperplasia or even a tumor of the thymus or a thymoma that can occur.

Depending on what the findings are, a multidisciplinary approach may be needed to manage patients with MG, particularly, for example, if a thymoma is identified, where you may engage colleagues in thoracic surgery or radiation oncology and medical oncology in order to manage some of these patients and ensure their optimal care.

Dr. Bril:
Thank you, Dr. Katzberg. I think that it's important to know that repetitive nerve stimulation tests are widespread. You can get them almost anywhere, but they're not very sensitive for the diagnosis of myasthenia gravis. Single-fiber electromyography is far more sensitive, but the practitioner has to be expert in performing the test in order to avoid technical interpretations or misinterpretations, I should say, of the results and to confirm the diagnosis. These tests are really necessary if the patient's examination is fairly normal and yet they give a history that's very suggestive.

So one of the most important diagnostic approaches is the clinical history, even with a normal physical examination. I fully concur about

the serologic markers. They help direct our therapy, but they're not always available very rapidly, and you may have to give symptomatic treatment in the meantime.

So working through the differential diagnosis for gMG requires understanding these issues around the testing that we have available and how soon we get the results.

I think that a lot of our patients get sent to ophthalmologists very early because so many present with ocular symptoms. And so they come to us from an ophthalmology clinic. Sometimes we have patients who've been followed for disorders such as chronic fatigue, rather than myasthenia gravis, and so we might see them from family practitioners or internal medicine physicians. So it is important for physicians in various specialties to be aware of this possible diagnosis for our patients.

Thank you for listening. I hope this discussion will be helpful in your clinical practice.

Announcer:
You have been listening to CME on ReachMD. This activity is provided by Prova Education and is part of our MinuteCE curriculum.

To receive your free CME credit, or to download this activity, go to ReachMD.com/CME. Thank you for listening.