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/life-threatening-events-understanding-and-preventing-myasthenic-crisis/32237/

Released: 01/17/2025
Valid until: 01/17/2026
Time needed to complete: 59m

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

Life-Threatening Events: Understanding and Preventing Myasthenic Crisis

Announcer:
Welcome to CME on ReachMD. This episode is part of our MinuteCE curriculum.

Prior to beginning the actvity, please be sure to review the faculty and commerical supprt diclosure statements as well as the learning objectives.

Dr. Silvestri:
This is CME on ReachMD, and I'm Dr. Nick Silvestri. Here with me today is Dr. James Howard.

Dr. Howard, myasthenic crisis is a frightening and life-threatening event for our patients and their caregivers. What preventative measures are available and, in reality, how successful are they?

Dr. Howard:
That's a great question, Nick. Myasthenic crisis, and we have to define it as those individuals who require ventilatory support. It's a term that's often misused in the public domain and sometimes in the literature. But from the myasthenia world, Myasthenia Gravis Foundation of America Classification System, there are those individuals who require assisted ventilation.

We believe that nearly half the patients, at some point in their odyssey of disease, will experience crisis. There is no way to predict it, though there are features that perhaps will increase the risk. Interestingly, being a male, interestingly being elderly will increase the risk. The characteristics of the disease development, the rapidity with which muscle weakness occurs seemingly will play a role, so that individual who has the abrupt acute fulminant onset of disease is more likely.

But in my experience, I see crisis in individuals who most often have had an adverse or an inciting event, either an infection or they've been given a therapeutic or pharmacological therapeutic drug that is toxic, if you will, to synaptic transmission. Now, this whole topic has come under recent controversy with a paper that says that many of the drugs we typically associated with being potentially dangerous in myasthenia are not. In my personal experience, there are many classes of drugs that have the potential to acutely worsen the disease. And in my experience, it placed individuals into exacerbation and some of them into crisis. And these would include beta-blockers, for instance, now the most notorious of which was propranolol, not used as much anymore because it's a non-selected drug, but that was notorious.

But even ocular installation of eye drops and a drug called timolol or Betoptic. I've had patients who, within 24 hours, have ended up on respirators because of acute fulminant myasthenic crisis. We often have concern that classes of antibiotics are potentially dangerous, and this is one group that has come under controversy. But I think that, on my own personal experience, that there are those drugs that have induced weakness. And there's basic science, physiological data recording elements of synaptic transmission that would suggest

that it is true that have the potential to acutely worsen a patient and, if they're brittle enough or weak enough, push them over the edge. So not only do they have an exacerbation, which some will have, but they don't have the reserve capacity and, therefore, end up in myasthenic crisis on a respirator.

How to prevent it? I don't think there is a good way to prevent other than gaining excellent control of the disease through our current and new immunological therapies. I have not seen a patient who's been in minimal manifestations, that is, no functional weakness on examination or minimal symptom expression or someone in remission, abruptly go into crisis.

It's the individual who has moderate to severe generalized weakness, who already has some oropharyngeal or respiratory weakness, are the ones that typically get pushed over and end up in this quite severe state. And so the predictors would be the disease severity that they have, but the prevention of such has got to be in our ability to treat them and get them into near perfect states, if you will, and keep them there.

Dr. Silvestri:
Well, thanks very much, Chip. This has been a great micro discussion. Our time is up, and thank you for listening.