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You Can't Diagnose MHE Unless You Diagnose Cirrhosis

Announcer:

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Dr. Flamm:

This is CE on ReachMD, and I'm Dr. Steven Flamm from Rush University in Chicago, and I'm joined today with Dr. Robert Brown from Weill Cornell in New York.

Bob, what do we mean when we say that minimal hepatic encephalopathy is not so minimal?

Dr. Brown:

Well, that's a great question, because we do want to recognize minimal HE, but the first step is to recognize early cirrhosis. Cirrhosis, of course, is a histologic definition, but increasingly, we're using noninvasive tests, or NITs, to screen for patients with advanced liver disease or cirrhosis, as well as for clinically significant portal hypertension, which is required to have any form of HE.

There are several things we can use in primary care practice to achieve this. The simplest are available from routine laboratory tests and often will be calculated automatically by your electronic health record.

This includes the FIB-4, which includes the AST, the ALT, the age, and the platelet count, and the simpler APRI, which just includes the AST and the platelet count. There are more advanced serum tests, like the Enhanced Liver Fibrosis Test, which is available from commercial labs, as well as elastography tests—the most common vibration elastography, commercially called FibroScan—as well as MR elastography, which can identify early patients with cirrhosis.

As a clinical pearl, use the platelet count. Thrombocytopenia less than 150 is often an early marker for cirrhosis. Certainly, less than 100, they likely have significant portal hypertension.

Once we've identified a patient with cirrhosis, we got to start looking for minimal hepatic encephalopathy. This is not obvious on clinical exam. This isn't the patient with overt HE who has asterixis and has trouble staying awake during the exam. These are patients who have subtle differences. You have to ask the right questions of both the patient or sometimes the significant other or caregiver. Are the patients walking around in the middle of the night and sleeping during the day, day-night reversal? Having trouble with concentration, balancing the checkbook, putting ridiculous words in Scrabble when they didn't used to?

Do not use the ammonia level. That can both overdiagnose and underdiagnose HE and doesn't really have a role in the diagnosis of

overt or minimal/covert HE.

What do you do in clinical practice, Steve?

Dr. Flamm:

Bob, you actually hit on some very important clinical pearls. It is critical that providers who take care of patients not miss the diagnosis of cirrhosis. And thrombocytopenia, that's the key. If any of the provider's patients have unexplained, even mild thrombocytopenia, they should be wary of the presence of cirrhosis.

And you know what, Bob? Patients can have normal liver enzymes and normal liver panels in general and still have cirrhosis. Patients can feel great and still have cirrhosis. You can't diagnose cirrhosis if you're not thinking about it. And you may, even if a patient says they feel great, have subtle problems like minimal encephalopathy that is missed because you're unaware that the patient has cirrhosis in the first place.

And also that ammonia point you made—we see in practice, ammonia levels drawn all the time, and they are very, very poorly predictive. So the advice to the provider is, don't check them. Rarely are ammonia levels actually helpful.

And then we do use noninvasive tests, Bob, in practice. Providers should get used to using them, because there are a lot of patients that have liver disease, like fatty liver patients, that we really need to learn how to use these noninvasive tests.

And that's knowledge you can put into practice right away. Thanks so much, and we'll see you next time.

Announcer:

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