Do Corticosteroids Decrease the Pain of Acute Pharyngitis? - Frankly Speaking EP 18

Transcript Details

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Dr. Frank Domino

Hello, this is Frank J Domino MD, Professor at the University of Massachusetts Medical School in the Department of Family Medicine and Community Health, and welcome to Frankly Speaking on Family Medicine. Joining me today, is Alan Ehrlich, Clinical Associate Professor of Family Medicine at the University of Massachusetts Medical School and Executive Editor for DynaMed. And today, we're going to be talking about a unique way to approach acute pharyngitis. Welcome to the show, Alan.

Dr. Alan Ehrlich:

Thanks, Frank.

Dr. Domino

So let's say we have a woman, Mary, she's 32 and she presents to your office with a runny nose, a cough, and a sore throat. Her symptoms imply this is not strep throat, but rather a cold, and nonetheless, Mary really wants a strep test. She's worried it's strep, which turns out to be negative. Mary has three children, and works full-time, and she begs you, "To give me something to make me feel better." And she heard on the news, last week, that there was a drug you can now use for sore throat that isn't strep. Can you tell us a little bit, Alan, about what's the latest data on using corticosteroids for acute pharyngitis?

Dr. Ehrlich

Thanks, Frank. So there was a recent study, the TOAST trial that was published in JAMA, in April of this year, and it looked at 565 adults who were presenting with acute pharyngitis. They reported it as moderate to severe and it was believed to be caused by some type of infection, although the clinician who was examining the patient didn't feel an antibiotic was required immediately. Patients were randomized to either a one time dose of dexamethasone, 10 mg orally, or a placebo. And rapid strep tests were not available in this setting, so they had throat cultures done, and ultimately, about one in six had strep. About the same number had a Centor Score greater than three and 40% of the patients were given a delayed prescription, saying, "If you don't feel better in two days, take the prescription for antibiotics."

They assessed symptom resolution at 24 and 48 hours. At 24 hours, there was a benefit favoring the dexamethasone that was not statistically significant, and at 48 hours, it was. The magnitude of that benefit was about seven percentage points. They also looked at things like how many patients needed to fill the delayed prescription, over the counter analgesic use, days missed from work or school, and there were no differences. This is similar to some earlier data. There was a Cochrane that had been done, that looked at the use of corticosteroids in patients who had received antibiotics or in patients who had mono. There have been studies on this and there's been some benefit seen in those settings as well.

Dr. Domino

That's pretty interesting, Alan. So we have an approach here, where if you have someone with a severe sore throat, you can give them something that's not an antibiotic, that will ultimately cause some pain reduction around 48 hours later. How do you go about using this in the course of your care of patients?

Dr. Ehrlich

Well, I think the first thing to do is... To put this a little bit in perspective with some earlier work that's been done on this... There, in fact, have been Cochrane reviews looking at this, both in patients with mono and in patients who have what appear to be bacterial infections. And one

thing that comes across... And they've also looked at populations of just adults, populations of just kids. The benefit seems greater in adults than in kids, and no surprise, the worse your sore throat, the more likely it is to benefit. And when some of the studies, particularly in children, where you combine patients who have really just mild sore throats, you really don't see a statistically significant benefit. I think the first thing is to realize this is not something that needs to be done for every patient with a sore throat. This is something that should be one part of your tool kit of, "How do I help a patient feel better?"

I like to say, "When patients come in, it's not because they want an antibiotic, it's because they want to feel better." Many patients say they want the antibiotic, but ultimately, they want to feel better and get on with their lives. And so one of the things we do when someone has pharyngitis, is first, we try and determine, "Is it strep or is it not strep?" And generally, if it's not strep, they are not going to benefit from an antibiotic, so we won't just try and say, "Well, how can we make them feel better, symptomatically?" And that can include throat lozenges. It can include analgesics like acetaminophen or ibuprofen. It can even include mild opiates like codeine or things like that. So you have a range of things and I think a short... A one time dose of dexamethasone or an equivalent of prednisone would be one option to consider, particularly, in patients with a very bad, severe sore throat.

Dr. Domino
Alan, when would you choose an oral steroid over acetaminophen and ibuprofen?

Dr. Ehrlich
I'm not sure I'm going to use it, instead of those. I think it would be in combination. So if I had somebody who came in and said, "I've been taking acetaminophen, or ibuprofen, and it's really not helping," then I may use this as add-on therapy. Again, it's a one time dose, also you cannot ignore the potential for adverse effects. I'm unlikely to use this in someone who's got diabetes, for instance, or someone who has hypertension that could be aggravated by the corticosteroid, even on a short-term basis.

Dr. Domino

Okay, great. I'm glad to hear that this sounds effective, but how big a difference did it really make?

Dr. Ehrlich

The difference is relatively small, but if you were to, say... Regarding the BMJ study, your number needed to treat is around 12, so you're making a difference for some patients. I think part of it is, also, as you said in your opening case with Mary, she wants to try something to help her regain function as quickly as possible, and so this is one thing that you can offer. It's not something that I think should be routinely prescribed for patients with sore throats. It is in a select population, where the sore throat is, particularly, at least moderately severe or worse, and where the likelihood of adverse affects is small, and the patient, after being informed of the pros and cons, wants something to maximize their likelihood of getting better.

Dr. Domino

Alan, I think all of us think of using corticosteroids in the presence of some unknown infection as a little bit concerning. Is there any chance using a corticosteroid's going to make a viral infection worse or a bacterial infection that we've missed worse?

Dr. Ehrlich

There's some theoretical aspects to that. For instance, mono is caused by Epstein-Barr virus, and Epstein-Barr virus can also lead to malignancies, and there's some concern about using even short-term steroids. Does that have any potential to increase the risk down the road? Although, it's theoretical, there's no practical evidence that that actually happens. Same thing with... What's the likelihood of the bacterial infection getting worse? We know that in certain situations, steroids can actually help with bacterial infections. If someone's having sepsis, we often will incorporate some type of steroid in that therapy. And when you look at patients who develop sepsis, who are already on steroids, they're often... It's not clear the steroids are making things worse. Nonetheless, they do suppress the immune system, so I would be more leery in anyone with a predisposition to immunosuppression.

Dr. Domino

Well, thank you, Alan. That's terrific. To summarize here, in patients with moderate to severe sore throat, the use of dexamethasone can lead to quicker resolution of symptoms, along with other supportive care, with or without an antibiotic. Can you give us a few final thoughts about how to prescribe this medication for both adults and children, and any other takeaway points?

Dr. Ehrlich

Sure, Frank. First of all, it's a one-time dose. You're not writing out an extended prescription. It's 10 mg for adults and 0.6 mg/kg for kids, up to a maximum of 10 mg dose. I think the thing to keep in mind, is that this is for patients with more severe sore throat. It's add-on therapy and the patients need to be engaged in the pros and cons of taking a corticosteroid. So if you have the right patient, it's one tool that you can use. And again, it's something that's... It can be used to make people feel better, particularly, when an antibiotic isn't going to be needed and the patient is looking for something that's going to give them some relief.

Dr. Domino

Thank you, Alan. Join us next time on Frankly Speaking for Family Medicine, where we discuss alternate day fasting.