

■ More tests needed for evaluation of shoulder pain?

TO THE EDITOR:

The Applied Evidence article on the evaluation of shoulder pain by Stevenson and Trojian¹ in the July 2002 issue of THE JOURNAL OF FAMILY PRACTICE was practical and useful. It can not be stressed enough how knowing the implications and limits of physical examination maneuvers can help lead us to or away from a particular diagnosis.

It was surprising that the authors did not discuss the usefulness of magnetic resonance (MR) arthrography in the diagnostic tests section of the article. MR arthrography can be superior to MR imaging when evaluating certain capsular/labral pathologies and incomplete rotator cuff tears.^{2,3} Chandnani and colleagues⁴ studied the same shoulders with conventional MR imaging and MR arthrography. The accuracy of each imaging technique for different parts of the

labral/ligamentous complex is shown in the Table.

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DRS. STEVENSON AND TROJIAN RESPOND:

Drs. Sease and Wilson make excellent points in their letter regarding our article. The omission of MR arthrograms was due to limits on the length of the article rather than a lack of importance of the test. We agree that at least 2 small studies have demonstrated some increased sensitivity of MR arthrograms compared with plain MR imaging for labral tears.^{4,5} The effect of MRI arthrography on clinical outcomes is not clear, though, and an MRI arthrogram is invasive, causes discomfort with needle placement, and exposes the patient to the potential for an adverse reaction from the contrast.⁶

Given the risks and the limited benefit in

TABLE

Condition	Sensitivity	Specificity	LR+	LR-
Labral tear				
Conventional MR	93	100	> 20	0.07
MR arthrogram	96	100	> 20	0.04
Detached fragment				
Conventional MR	46	100	> 20	0.54
MR arthrogram	96	75	3.9	0.05
Labral detachment				
Conventional MR	11	83	0.7	1.1
MR arthrogram	56	83	3.3	0.53

LR+, positive likelihood ratio; LR-, negative likelihood ratio; MR, magnetic resonance

regards to increased sensitivity,⁴⁻⁸ we reserve MR arthrograms for a small subset of our patients who have persistent signs or symptoms of a labral tear despite a negative MRI. We also use them with athletes where the need for an immediate and accurate diagnosis outweighs the risks. We do not routinely use an MR arthrogram for rotator cuff tears since a thorough history and physical, followed by a plain MRI, is often sufficient to make a diagnosis of either a partial or complete tear.¹

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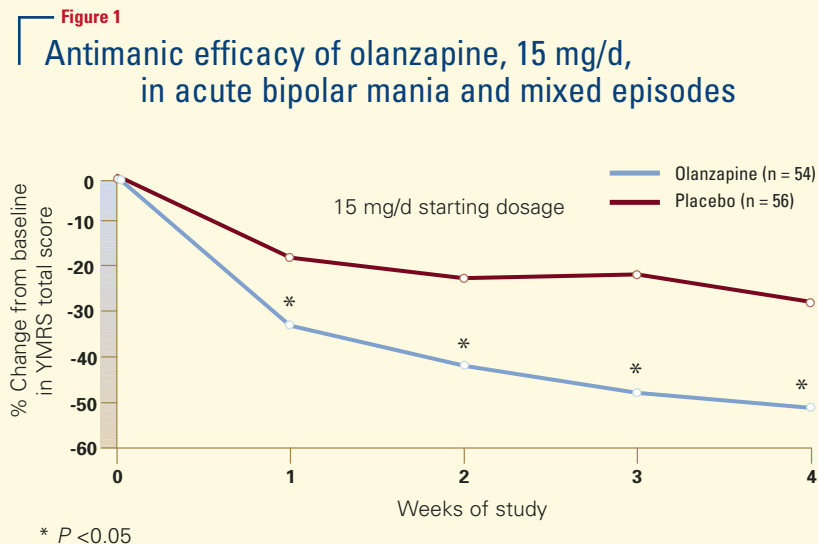
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Correction

An error appeared in Figure 1, page 23 of the JOURNAL OF FAMILY PRACTICE supplement, "Foundational treatment for bipolar disorder" (March 2003). The correct figure is printed here.



Patients with acute bipolar mania or a mixed episode were treated with olanzapine or placebo for 4 weeks in a randomized, double-blind trial. Compared with placebo, olanzapine at a starting dosage of 15 mg/d was associated with significant symptom improvement in the first week ($\geq 50\%$ change from baseline in Young Mania Rating Scale total score). This trend continued throughout the trial.

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■ Use of B-type natriuretic peptide test

TO THE EDITOR:

New studies on the diagnostic utility of B-type natriuretic peptide (BNP) come out almost daily. In the Patient-Oriented Evidence that Matters section of the October 2002 issue of *THE JOURNAL OF FAMILY PRACTICE*, Drs. O'Connor and Meurer¹ reported on results from one of the largest and perhaps best designed study to assess use of the BNP test in more than 1500 patients presenting to emergency departments at 7 sites.² Use of a rapid (15-minute) bedside assay provided support for the diagnosis of heart failure as the cause of acute dyspnea, with a BNP concentration of more than 100 pg/mL being strongly suggestive of heart failure.

As exciting as these results are, they need to be interpreted with caution. Approximately 5% of the patients in this study had a prior history of left ventricular dysfunction but the original investigators² believed heart failure was not the cause of the acute dyspnea. The average BNP value in this group of patients was more than 300 pg/mL, ranging from less than 50 pg/mL to more than 1000 pg/mL. BNP results may be misleading in patients who present with acute dyspnea and have a prior history of left ventricular dysfunction, because BNP values may be

chronically elevated (to well over 100 pg/mL) in this population. While it is true that the higher the BNP value, the more severe the degree of left ventricular dysfunction, overlap in BNP results in this particular study was great enough between severity groups to limit the diagnostic value of the relative amount of BNP elevation. Clearly, finding a very low BNP value (<50 pg/mL) in a patient with acute dyspnea has a high (>90%) diagnostic value for ruling out heart failure as the acute cause of dyspnea. More data are needed, however, before we can truly know how best to interpret an elevated BNP reading in the acute setting for patients in whom standard clinical bedside evaluation fails to provide clear directive on how to proceed with acute management.

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DRS. O'CONNOR AND MEURER RESPOND:

Dr. Grauer makes excellent points. The BNP test is of limited utility among patients with a previous history of heart failure. Although the test performed well in the diagnosis of ventricular myocardial dysfunction in most patients (overall accuracy 83%), it did not distinguish whether this condition was acute or chronic. BNP results should not replace, but may add to the information obtained through a good history and careful clinical evaluation.

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Clinical Inquiries