Letter to the Editor

Navicular Stress Reactions in Runners

To the Editor:

The article titled “Navicular Stress Reactions in Runners: A Review of Evaluation and Management of a Competitive Athlete,” by Robert Yoho, DPM, MS, and Shevonne Wells, DPM, MHA, which appeared in the September/October 2011 issue of JAPMA, is interesting because it brings attention to serious injuries that can occur in competitive athletes. The missed diagnosis of a navicular injury can result in debilitating sequelae to the patient and his or her career. The article focused on the use of imaging to help reach a correct diagnosis and subsequent treatment of navicular injuries.

Yoho and Wells’ article was interesting but failed to give an overall picture of diagnostic imaging regarding navicular injuries. In their article, Yoho and Wells relied on an old MRI classification system. MRI can sometimes miss fracture lines due to increased bone marrow edema with the navicular.1,2 Furthermore, the authors used several references that note that increased bone marrow edema viewed on MRI can be present for many months following a navicular injury, making this imaging modality less relevant.1,2

As noted by the references used in Yoho and Wells’ article, CT scans are considered a necessary adjunct to the diagnostic imaging of navicular stress injuries.1-5 In their discussion, Yoho and Wells relate that CT scans should be used for evaluation of navicular stress fractures. Having said that, it seems unfortunate that the article did not mention Saxena, et al’s article regarding the use of CT scans for navicular injuries.1,2 Saxena et al1 created a classification that is not only diagnostic but also prognostic. With a review of the references used by Yoho and Wells, it is noted that Saxena et al’s body of work was presented and discussed in the references used in their article.1,2

Subsequent papers concerning navicular stress fractures often cite another study by Saxena and Fullem, published in Foot and Ankle International, which uses CT to evaluate and base treatment.5 JAPMA readers should be made aware of all current trends and debates regarding the management of navicular stress fractures. It should be noted that most physicians currently use CT scans to determine the presence of a navicular fracture. If Yoho and Wells were advocating the use of Arendt et al’s radiologic and management algorithm, they over-treated their patient.

The current recommendation for navicular stress fractures is 6 weeks of nonweightbearing. Yoho and Wells’ patient appeared to have a “stress reaction,” which has now been described as a “Type 0.5” by Saxena and Fullem. Their patient was also kept nonweightbearing unnecessarily long, preventing him from returning to activity for longer than what would be typical.6 Unnecessary “downtime” is not helpful for an athlete.

Including this more current and accepted information would have made Yoho and Wells’ paper more substantive and beneficial. Without it, their paper was an incomplete and inaccurate “review.” Overtreatment of athletes can undermine their careers and lead to loss of fitness. Additionally, understatement of the literature can lead to erroneous conclusions.

References


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At the time this letter was written, Dr. St. Louis was Dr. Saxena’s fellow at Palo Alto Medical Foundation. Dr. St. Louis is now in private practice.
Author’s Response

To the Editor:

Dr. Wells and I appreciate the feedback from Dr. St. Louis. A virtue of civil academic discourse is reaching a resolution in some cases while in other instances continuing a respectful debate. That is why we have these discussions, so clinicians can evaluate the body of evidence and decide for themselves. We all agree that early diagnosis of navicular stress—related injuries is critical to the patient. The clinical and diagnostic process used to reach a definitive diagnosis can vary. Case presentations, albeit a lower level of evidence/scholarship, provide insight into the clinical reasoning and medical evidence considered in answering the clinical question. “Old” does not necessarily imply outdated and in fact may be a sign of having stood the test of time.

It appears that Dr. St. Louis is concerned with our article not directly citing several articles published on this subject by several accomplished podiatric physicians. We certainly recognize the contributions of Drs. Saxena, Fullem, and Hanna-ford cited by Dr. St. Louis. We encourage readers to consider this article and the cited references as well as the additional references submitted by Dr. St. Louis. In particular, I would encourage readers to review the Letter to the Editor/Author’s Response dialogue that Dr. St. Louis cites as Reference 6. It should be pointed out that this Letter to the Editor/Author’s Response was published after our article was accepted for publication and was in response to an article by Torg et al titled, “Management of tarsal navicular stress fractures,” published in The American Journal of Sports Medicine, published at the same time our article was accepted for publication.

I would like to respond to a comment made by Dr. St. Louis in reference to the patient being “kept nonweightbearing unnecessarily long, preventing him from returning to activity for longer than what would be typical.” The diagnostic and clinical findings in this case suggested a grade 2/3 injury. Considering the circumstances for this patient, I would respectfully suggest that undertreatment is more likely to “undermine the athlete’s career” compared to overtreatment, especially with an athletic scholarship hanging in the balance. To base treatment on the article cited by Dr. St. Louis without having evaluated the patient is presumptuous and minimizes the clinical evaluative component in this patient’s care. In fact, the treatment provided to this patient was consistent with the recommendations of Arendt and Griffiths referenced in our article, the Saxena and Fullem 2006 article, and the most recent systematic review and meta-analysis by Torg et al.

What is most important is the outcome for this patient, who went on to have a successful Division I baseball career without re-injury.

I will leave it to the readership to determine 1) the merits of our case study based on an examination of the cited literature, and 2) the appropriateness of the comments submitted by Dr. St. Louis. Again, we appreciate the comments from Dr. St. Louis and the opportunity to respond. We can all agree that patients with suspected navicular stress injuries require timely and appropriate application of various diagnostic tools with individualized length and type of care.

Respectfully,

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