Journal of Andrology, Vol. 25, No. 6, November/December 2004

Management of Testicular Rupture in the Nonacute Setting—Explore or Observe?

Androlog Summary

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Note: Postings to *Androlog* have been lightly edited before publication.

As might be expected, given the relatively exposed location of the testes, blunt or penetrating trauma to the testis is a fairly common urologic emergency. Due to the pain and hematoma formation that typically accompanies testicular rupture, patients suffering from this condition generally present on an acute basis and emergent repair is often associated with a good outcome. Still, delayed diagnosis of testilucal rupture occurs from time to time, giving rise to the question of whether or not surgical exploration is advisable in the nonacute setting. In this edition of *Androlog Summary*, Dr Spencer Land seeks advice regarding such a patient.

> Dear Colleagues,
> One of our former residents here called me about a case yesterday. A 24-year-old white male was hit by a line-drive softball 3 weeks ago. He did not have any imaging done at that time. He presented yesterday with swollen scrotum, though less so then immediately after the injury. An ultrasound showed a testicular rupture. The question: Does this warrant a scrotal exploration if he is improving clinically? Is he at risk for antisperm antibodies and, if so, what is the risk of fertility issues? Thanks for your help.
>
> Spencer Land

Dr Mark Ratner suggests that a conservative approach may be in order, since reconstruction may not be feasible at this point in time:

> I don't believe that an exploration would lead to anything except an orchiectomy. Reconstruction of the testicle 3 weeks after a rupture would seem highly unlikely. Although it's possible that there is devitalized parenchyma present, if the patient has "clinically improved," and continues to see gradual resolution of the swelling, I would manage this conservatively. While spermatogenesis in this testicle may end up compromised, its hormonal function should be preserved.
>
> There is certainly a theoretical consideration that antisperm antibodies could result from this disruption of the blood testis barrier. However, if 3 weeks have already elapsed, this immune response would presumably already be underway. I'm not aware of any evidence that a delayed orchiectomy would affect that issue.
>
> Mark Ratner

Dr Jerry Yuan sites a case from his own experience suggesting that exploration may improve the patient's clinical outcome.

> In a similar case, testicular rupture was not recognized initially and the patient presented with hydrocele a couple months later. Exploration revealed an obvious rupture with the rent covered with a veil of membrane-like tissue. I would be inclined to repair this now rather than waiting.
>
> Jerry Yuan

Dr John P. Mulhall suggests that consideration be given to surgical intervention if a significant hematocele or hematoma exists.

> Some years ago I published a case series of testicular ruptures (Mulhall JP, Gabram SG, Jacobs L. The emergency management of blunt testicular trauma: a case series. *Acad Emerg Med.* 1995;2:639–643. http://www.aemj.org). These cases, and a review of the literature, revealed that this is an uncommon event, ultrasound is associated with a significant false negative rate (it has a high positive predictive value), and patients typically present in a delayed fashion. The literature would suggest, albeit through case series, that prolonged hematoma or hematocele may lead to pressure atrophy of the testis. In our retrospective series, we did not assess for antisperm antibodies. One could infer from the literature, therefore, in this case, if a significant hematoma or hematocele remained that decompression of this may be indicated.
>
> John P. Mulhall MD