

ing a guidewire through a cannula. Given its educational value, this video needs revision.

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THE AUTHORS REPLY: We agree with Harris and Naina that malposition of a catheter in the internal jugular vein is an important complication. The constraints of video production do not permit the inclusion of all possible complications, and we agree that the articles by Ambesh et al. and Naina et al. describe this complication and potential solutions quite well. Evans notes a technique that can be used to avoid internal-jugular-vein placement; we have no experience with this technique.

Graham points out an important consideration: it is clear that higher-bore, shorter catheters result in more rapid fluid flow. Without doubt, use of a 14- or 16-gauge catheter would result in more rapid fluid administration than use of the

18-gauge catheter pictured in the video. However, it is important to keep in mind the length of the peripheral catheter. In some cases, smaller catheters that are also shorter may have higher infusion rates.

In response to the comments by Schummer and colleagues, many standard texts refer to placement of a towel underneath the spine. The intent is not to pull the shoulder caudad but to allow the shoulder to relax posteriorly to move the head of the humerus out of the working plane. It is one option in optimizing the position. As for the forward-backward movement of the wire, the potential for damage to the wire is not zero, but in the context described, in which advancement of the wire leads to dysrhythmia, we believe it is important to pull the wire back quickly. The operator should be sure that the wire always moves freely; it should never be tugged or require anything but minimal effort. If more than minimal effort is required, the wire and needle should be withdrawn together. We believe that the incidence of wire damage is low enough that the practice should not be avoided at all costs, but learners should keep in mind that when aberrancies from normal procedure occur, the procedure should be modified appropriately.

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Eosinophilia and Acute Interstitial Nephritis

TO THE EDITOR: Over the past two decades, testing for eosinophilia has gained widespread acceptance as a means of screening for acute interstitial nephritis. The frequent use of this test may be explained, in part, by the subtle clinical presentation of this condition (fever, rash, arthralgia, and renal failure), which mimics other entities, such as pyelonephritis and renal manifestation of various systemic diseases. Renal biopsy, although used infrequently to diagnose acute interstitial nephritis, continues to be the gold standard.

The data on urinary eosinophil testing are inconsistent. A report in the *Journal* in 1986 by Nolan et al.¹ states that detection of eosinophils with Hansel's stain "appears to be a sensitive marker

for drug-induced acute interstitial nephritis." Similar studies by Corwin et al.^{2,3} support this conclusion. All reports note a broad spectrum of diseases associated with eosinophilia and urge caution in the interpretation of positive findings. Furthermore, a 1987 letter to the editor⁴ pointed out that in the report by Nolan et al., acute interstitial nephritis was not established on a histologic basis for the majority of patients. Seven years later, a study of 152 patients with pyuria and 51 patients with suspected acute interstitial nephritis⁵ showed that the sensitivity of eosinophilia was 40% for the detection of acute interstitial nephritis and the positive predictive value was no greater than 38%.

Since then, little has been published on the matter, yet the clinical practice of screening urine for eosinophils to detect acute interstitial nephritis appears to have flourished. Data from our institution (unpublished) showed that 62 of 534 quantitative urinary eosinophil tests performed in 2006 showed eosinophiluria. Acute interstitial nephritis was diagnosed in only 13 patients during the same year (with no biopsy confirmation in any of the patients): in 2 patients, eosinophils accounted for more than 2% of white cells in the urine; in 6 patients, the urine was negative for eosinophils; and in 5 patients, a urinary eosinophil test was not performed. The sensitivity and positive predictive value in our institution are 25% and 3%, respectively. Interestingly, most of the tests (98%) were ordered by physicians who were not nephrologists.

In this era of evidence-based medical practice, the widespread use of a screening test with such poor sensitivity and low positive predictive value seems unjustified. In addition, the literature is inconclusive, failing to provide solid evidence that

eosinophiluria is indicative of acute interstitial nephritis. At best, testing urine for eosinophils to detect acute interstitial nephritis represents a simple clinical misconception of utility and effectiveness; at worst, it represents a hazard to patients through false positive diagnosis, leading to unnecessary treatment, or false negative diagnosis, resulting in delayed renal biopsy and treatment.

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