Correspondence

Neurolytic Celiac Plexus Block Should Include Contrast Media

To the Editor—Kaplan et al. reported a case of aortic dissection as a complication of celiac plexus block. In my opinion, this complication may have been avoided if the block had been performed using fluoroscopic control with contrast, particularly when the normal vascular area was distorted by invasive tumor.

The patient was reported to be allergic to contrast media. However, severe reactions to newer generations of contrast media are rare, even in patients with previous adverse reactions. It is important to obtain a detailed allergic history, e.g., which contrast agent was used, nonionic versus ionic, high-osmolality versus low-osmolality, procedure, route of administration, the nature of the reaction, and the treatment for the reaction. Low-osmolality, nonionic agents usually are used in patients at risk because they produce fewer side effects. Prevalence of severe reactions from using these agents in this group of patients is less than 1 in 3,000. Steroid and antihistamine premedications have been shown to decrease the frequency and severity of adverse reactions to contrast media.

The authors commented that the patient experienced generalized body pain during injection of alcohol and attributed this painful response to intraarterial injection. Intravascular and possible intra-medial injections can be identified easily if contrast medium is used with the neurolytic agent. I also suspect intravascular injection of alcohol would produce more of a central nervous system depression. Finally, the effective use of oral opioids and the availability of epidural/spinal infusion techniques in treating malignant pain may place neurolytic celiac block out of favor.

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References


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In Reply—Hong’s suggestion that the use of contrast media would have avoided the complication reported is dismissed for the following reasons:

1. The event occurred near the end of the procedure, when fluoroscopy would not be used.

2. Injections of neurolytic agent in contrast material may show intravascular and intramedial injections during the event, thereby not preventing it.

The patient’s allergic response to contrast media was generalized urticaria, respiratory distress, and hypotension. Although the risk of reaction to contrast media can be decreased by using nonionic media, as well as steroids and histamine blockers, such precautions do not eliminate contrast media reactions. Because the computed tomography (CT) study did not suggest anatomic distortion of the area of injection, we did not believe there was a need to risk the use of contrast media, which, again, would not have avoided or prevented the events noted in this case. The autopsy confirmed the CT findings: There was no tumor invasion near or into the affected vessels.

Before the autopsy, our clinical assessment was that intravascular injection of alcohol caused the events. We believed that this produced celiac/mesenteric vascular thrombosis, leading to the bowel infarction and pain. It was difficult to understand how the injection of a small amount (1 ml) of alcohol would have produced it. The post-mortem examination resolved this dilemma with the finding of aortic dissection, which could explain the clinical events. We do not attribute the pain, which occurred at the time of the dissection, to intravascular alcohol. We cannot explain the generalized body pain but report it because it was a significant event.

It is doubtful that use of celiac block will cease despite “effective use of oral opioids and the availability of epidural/spinal infusion techniques.” Our patient represents a failure of oral and parenteral opioid analgesia. The cost/benefit of epidural/spinal infusion techniques and low risk/high response of celiac block for pain control in terminal cancer patients will maintain celiac blocks as an analgesic modality. It is the specific technique of transdiaphragmatic approach to celiac plexus block that eventually may be placed out of favor.

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