

the emergency department. This may suggest that the epidural blood patch served as an effective therapeutic modality because of a PDPH from the lumbar puncture in the emergency department.

In addition to these issues, some of the technical jargon is used in a very confusing manner. For example, “high or spinal anesthesia” is listed as a potential complication of epidural placement. This is very ambiguous because the terms “high” and “spinal” are not synonymous. It is possible to have a high epidural level, but only accidental or unrecognized dural puncture can lead to a “spinal” (which may progress to a high spinal). Patient management in each of these situations may be markedly different. Nonetheless, it is crucial to note that Dr. Reamy’s central message of not allowing patient care to be negatively influenced by the findings of a single, non-authoritative, pooled analysis remains extremely important.

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doi: 10.3122/jabfm.2009.05.090098

The above letter was referred to the author of the article in question, who offers the following reply.

## Response: Re: Post-Epidural Headache: How Late Can It Occur?

*To the Editor:* I want to thank Dr. Quraishi for his comments, insights, and 3 additional literature citations on post-dural puncture headaches (PDPH) by Greene, Quraishi, and Lybecker.<sup>1–3</sup> After careful review of these articles, I strongly disagree with his contention that the onset of a PDPH has previously been reported outside the widely accepted range of 1 to 7 days and maintain that the case I described is the first reported instance of

a markedly delayed presentation at 12 days post-procedure.<sup>4</sup>

The fascinating 1961 article by Greene on the neurological sequelae of spinal anesthesia specifically states that, “postspinal headaches will not be considered . . .” and does not discuss the onset of PDPH in his otherwise thorough review.<sup>1</sup> The 2005 commentary by Quraishi cites this same Greene article as the source for the statement that onset of PDPH can be as late as 12 days after dural puncture.<sup>2</sup> Finally, the 1995 case series by Lybecker et al specifically reviewed the onset of PDPH in its case series of 873 consecutive patients undergoing 1021 spinal anesthetics that led to 75 episodes of PDPH.<sup>3</sup> While he states that the *duration* of headache was from 1 to 12 days, he reports that, “PDPH occurred within 2 days in 96% of the 75 cases included in this study. In all cases the symptoms disappeared spontaneously or because of AEBP within 5 days regardless of the severity of the PDPH.”<sup>3</sup> Therefore, in this series *no cases* had *onset* outside a 5-day window, which is well within the traditional 1- to 7-day window reported in the literature.

Dr. Quraishi also raises concerns that the patient’s headache could have been worsened by the lumbar puncture done in the Emergency Department (ED). This is certainly a valid point, but it does not mitigate the fact that the onset of the severe headache had already occurred before the ED evaluation. I agree with his feeling that the terms “high” and “spinal” are used in a confusing fashion throughout the literature on PDPH. I applaud Dr. Quraishi’s re-emphasis of the key point that individual patient care should not be negatively influenced by the findings of a single pooled analysis.

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*Disclaimer:* The views expressed in this reply represent the views of the author and not necessarily those of the United States Air Force, the Uniformed Services University, or the Department of Defense.

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doi: 10.3122/jabfm.2009.05.090109