Reviewer's report

Title: Management of Giant Pseudomeningoceles after Spinal Surgery

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Reviewer: Frank Feigenbaum

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Editorial Review by Frank Feigenbaum, MD


The authors courageously describe a retrospective review of 11 cases to assess their treatment of giant postoperative pseudomeningocele with a regimen of reoperation and postoperative lumbar drainage. Concerns are as follows:

Major Compulsory

1. In the methods section of the abstract it states that patients were recruited, implying a prospective study. But, a few sentences later it states that the study was retrospective. Which was it?

2. In the results section of the abstract, and in other points of the manuscript, it describes that the pseudomeningoceles (misspelled in the manuscript) were excised. A pseudomenigocele is a fluid filled cavity in the soft tissues which is entered and drained. It is not a tumor or mass which would be excised. Please clarify.

3. An initial trial of lumbar spinal drainage prior to reoperation is often customary in the treatment of pseudomeningoceles. Was this attempted in the 11 patients? If not, why?

4. The methods section does not describe the technique used for intraoperative dural tear repair. Suturing alone? Suture and muscle patch? Use of dural sealants? Was there variation in intraoperative technique depending on the size of the dural tear? Clarify.

5. There is only passing comment at the end of the manuscript on the option of conservative management in asymptomatic patients with a pseudomeningocele. Even large pseudomeningoceles can be seen to scar down and resolve over time. Nonsurgical management should be the preferred approach if a patient is asymptomatic. This should be stated.

6. There are multiple syntax errors which will need editorial attention.

Discretionary Revision

1. In the first paragraph of the background section on page 3, and in the first paragraph of the discussion on page 7, it states that the incidence of postoperative pseudomeningocele is unknown since the majority of patients are probably asymptomatic. A more likely reason is that spine surgeons are reluctant
to publish negative results. This should be stated.

2. A major symptom of postoperative CSF leak is postural headache. Did the authors assess for this? What was the incidence?

3. It is interesting that dural tears were identified in all 11 patients at the time of the initial surgery that led to pseudomeningocele formation and subsequent reoperation. That implies that the initial spinal fluid leaks were not completely closed. This fact emphasizes how important it is to adequately equip spine surgeons during training with the techniques they will need to properly address intraoperative spinal fluid leaks. This could be emphasized in the discussion.

With consideration of the above, this article is an important addition to the surgical literature. There are precious few examples of similar articles that address the challenges of treating large postoperative pseudomeningoceles. It therefore warrants publication.

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Level of interest: An article of importance in its field

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: No, the manuscript does not need to be seen by a statistician.