Reviewer's report

Title: Sporadic isolated congenital asplenia with fulminant pneumococcal meningitis: a case report and updated literature review

Version: 0 Date: 19 Oct 2017

Reviewer: Sarah S. Long

Reviewer's report:

The case report and review of the literature of reported cases of sporadic isolated congenital asplenia are of interest. Comments, requests and suggestions follow.

Abstract: Sporadic isolated asplenia is a "condition", not a "disease".

Background: The spleen is critical in "host" response or in the "predominantly innate immunologic response" to infection. The spleen is not as critical as an "immune response".

Page 4, line 26: "less frequently" rather than "fairly more infrequently"

Case Presentation

Page 6, line 3: 11,000 cells are not "pus", but rather pleocytosis. You should also report Gram stain findings. (If there were sheets of organisms, the fluid could have appeared as "pus").

Page 6, line 16: You should provide minimum inhibitory concentration for penicillin.

Discussion

General: The writing is repetitive. Points should be made once, and concisely.

Page 7, line 25: "…otherwise normal, previously healthy young adult males" (They died)

Page 9, line 16: 7 of 12 is not "78%"

Page 9, line 41: "As noted in the present case… physicians may have a false sense…". This does not appear to be true for the case reported. In fact, antibiotic was administered for a "URI", and then empirically when the patient presented with purpura fulminans. You should concisely make two points: 1) Patients who come to attention with signs of invasive infection should be treated emergently. (This is the general practice globally); 2) patients with known asplenia should have an antibiotic at home to take with any febrile illness (if not receiving continuous prophylaxis), and should seek medical attention for all febrile illnesses.

Page 11, lines 13-18: You should put vaccination ahead of prophylaxis throughout the discussion. You should state "…immunization with thirteen-valent conjugate pneumococcal vaccine (PCV13) and conjugate Haemophilus influenzae b vaccine, followed by 23-valent pneumococcal polysaccharide vaccine (PPSV23) at 2 years of age or older, with a recommendation in the U.S. and many other countries for second dose of PPSV23 5 years later". (Ref CDC Immun schedule). Additionally, vaccination reduces but does not eliminate risk of invasive infection.

Page 11, line 38: Delete "recently" from sentence regarding recommendations, which are more than a decade old.

Page 12, line 10: There is lack of good clinical data in "patients with congenital or surgical splenectomy". Should add and reference that there is evidence of good efficacy of penicillin prophylaxis in patients with functional asplenia (such as sickle cell disease).

Page 13, line 19: Should add influence as on "some physicians". This final paragraph stresses a false sense of uncertainty. Focus should be changed.

Conclusion: You should delete "potentially" and change to "…life-saving vaccination with series of PCV13 and Hib vaccines, followed by PPSV23, also as well as penicillin prophylaxis, pre-emptive investigation and empiric treatment early in the course of illnesses". You should add that a significant limitation of case reports is not only incomplete data about the full syndrome of asplenia, as well as disinclination to report, or for medical journals to publish, repetitive case reports. The writing can be substantially tightened and redundancy removed.
**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
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Not relevant to this manuscript

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