Reviewer's report

Title: Arthritis in adults with community-acquired bacterial meningitis: a prospective cohort study

Version: 1 Date: 19 December 2005

Reviewer: John j Ross

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The major clinical question that this interesting report leaves unanswered is the prognostic implication of arthritis in the setting of meningitis. Is the mortality rate higher in meningitis patients with arthritis, compared to meningitis patients without arthritis? My guess would be that mortality would be higher in pneumococcal meningitis with arthritis, as they are more likely to be bacteremic and have a higher burden of infection, compared to patients with pneumococcal meningitis without arthritis. I would also expect that as the arthritis of meningococcal meningitis is usually immune-mediated, that arthritis would not adversely affect the prognosis.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. On page 2, under "results", would change "Arthritis occurred most frequently in patients with meningococcal meningitis (12%)" to the less ambiguous "The incidence of arthritis was highest in patients with meningococcal meningitis (12%)."

2. The low percentage of patients with culture positivity is a bit of a weakness in this paper, as discussed on page 6. It is probably explained primarily by the sterile, reactive nature of much meningococcal arthritis, and possibly also by the fact that antibiotics may have sterilized the joints prior to aspiration. It is worth mentioning that another diagnostic consideration in these patients is gout and pseudogout, both of which commonly flare up during stress and acute medical illness.

3. Page 8 (and abstract): the conclusion should specifically mention that longer antibiotic courses are indicated if infectious arthritis is diagnosed, as this is the major "additional therapeutic measure" which should be considered.

4. One of the important take-home messages of the paper is that the functional outcome of arthritis in survivors of meningitis is generally good because meningococcal arthritis is usually (but not always) immune-mediated, and pneumococcal arthritis is usually less deforming than staphylococcal arthritis. This should be briefly explained in the abstract.

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Discretionary Revisions (which the author can choose to ignore)


What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.