

Peer Review File

Article information: <https://dx.doi.org/10.21037/aoj-22-43>

Comments:

The authors have completed a comprehensive review of evaluation and treatment of non-infected painful total shoulder arthroplasty, providing a detailed discussion of diagnosis and management for postoperative pain in various scenarios. The authors' expertise and attention to detail are evident throughout the paper, and this review will undoubtedly prove to be a valuable resource for clinicians and researchers in this field. To further enhance the quality of the manuscript and improve its impact, the following suggestions are provided for the authors' consideration.

Comment 1: Introduction

(1) As the authors mentioned in the abstract that "This review presents an algorithmic approach", it is recommended to provide a comprehensive and reasonable explanation of this diagnostic and treatment algorithm in the introduction. This could involve pooling together various resources, including international guidelines, best practice recommendations, and available data from different types of studies, as well as a description of its cover, including diagnostic evaluation, therapeutic options, and target population.

Reply (1): We have added a new paragraph to introduction with an author's preferred treatment algorithm diagram provided

Changes in Manuscript: (Lines 193-200 in main text): New Content was added to encompass these recommended changes as well as providing flow chart algorithm is present on line 247

(2) The authors may need to provide an easy-to-follow visual guide of the recommended steps by adding a summary table or diagram to illustrate the algorithmic approach and treatment options, which can be helpful for readers to quickly grasp the information.

Reply (2): We have added a flow-chart author preferred treatment algorithm to the manuscript

Changes in manuscript: flow chart algorithm is present on line 247

Comment 2: Main body

(1) Since a systematic workup is critical in identifying the source of pain for a painful total shoulder arthroplasty, the authors may consider providing a comprehensive checklist for healthcare professionals to refer to during the examination, which includes information helpful for differential diagnosis.

Reply(1): Added checklist for author specific guide to clinical work-up of painful shoulder arthroplasty

Changes in manuscript: Checklist provided on line 276

(2) Regarding the imaging and laboratory evaluations, we suggest that the authors provide more specific and evidence-based recommendations, with a clear hierarchy if possible. Considering the potential harm and cost to patients, it is important to balance the selection and order of tests to achieve the best outcome. An algorithm should aim to provide a balanced approach to achieve optimal results, rather than simply listing available tests and their sensitivity.

Reply(2): more thorough text was added to both sections. We are not focusing in infected shoulder arthroplasty in this study and did not plan on identifying the specifics of an infectious work-up but have added an author recommended hierarchical approach to imaging studies as well as a more in depth evaluation of the laboratory section

Changes in Manuscript: (Lines 344-372 have been revised) We have adjusted the laboratory section to include a more thorough evaluation. Lines 309-312,329-333: A more thorough imaging hierarchy has been provided with author recommended approach to initial and advanced imaging studies

(3) The authors' provision of typical imaging examples is appreciated. However, the current images are too dispersed. It would be helpful if the authors could combine the images mentioned in the same section into a single figure, labeled as A, B, such as Fig.1&2, Fig.3&4.

Reply(3): Figures have been combined where relevant

Changes in the text: Figures 1-2 and 3-4 were combined together to meet this requirement

(4) The title of the article is "evaluation and treatment", and the abstract states that this article "provides treatment options". Therefore, it is recommended that the second part of the article include more comparisons of the advantages and disadvantages of various treatment options, and ideally provide recommendations for first-line and second-line treatments, rather than focusing excessively on the analysis of the causes.

Reply(4): This topic is very broad and thought to be out of the scope of this project by the authors. We have provided a table of our recommended treatment algorithm provided in comments (1-2). The review also does highlight known 1st line and gold standard treatment options listed in the various complication sections

Changes in the text: As described above.

Comment 3: Article type

We strongly welcome the submission of narrative reviews, although our editors may still consider traditional reviews for publication.

Reply: Manuscript has been revised to fit narrative review criteria

We recommend the authors revise the manuscript as a narrative review. Below are some specific suggestions for a narrative review.

A narrative review provides a well-structured abstract and descriptions of the methods compared to traditional reviews, which helps readers to better understanding the content of this study and assess whether the search is comprehensive and up-to-date. Therefore, we would like the authors to revise this article according to the requirements of a narrative review in AOJ (<https://aoj.amegroups.com/pages/view/guidelines-for-authors#content-2-2-3>):

(1) Identify the report as a Narrative Review or Literature Review in the title.

Reply (1): Title of manuscript adjusted to meet this criteria

(2) The abstract should be structured with the subheadings:

- Background and Objective: describe relevant background, reasons for conducting this review and primary objectives of this review.
- Methods: briefly describe the search strategy, including databases, time frame, and language considerations.
- Key Content and Findings: describe what the literature review will mainly contain and any key findings.
- Conclusions: describe the main conclusions and how the review may potentially impact future researches, clinical practice and policy making.

Reply (2): Abstract adjusted to meet this criteria

(3) Main text should be arranged as Introduction, Methods, Main Body and Conclusions. Thus, please add a Methods section, including a completed table as follows, which includes an independent supplement table to present detailed search strategy of one database as an example, or the authors could present the search strategy using Boolean operators in the table:

Table X. The search strategy summary

Items	Specification
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Date of Search (specified to date, month and year)	
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Databases and other sources searched	
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Search terms used (including MeSH and free text search terms and filters)	
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Note: please use an independent supplement table to present detailed search strategy of one database as an example

Timeframe	
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Inclusion and exclusion criteria (study type, language restrictions etc.)

Selection process (who conducted the selection, whether it was conducted independently, how consensus was obtained, etc.)

Any additional considerations, if applicable

*Note: please note that a narrative review is less methodologically demanding than a systematic review, as it does not require a search of all literature in a field. Therefore, the search strategy summary of a narrative review is mainly used for more transparent reporting.

Please note that a narrative review is less methodologically demanding than a systematic review, as it does not require a search of all literature in a field. Therefore, the search strategy summary of a narrative review is mainly used for more transparent reporting. Here are two examples for your reference:

-<https://atm.amegroups.com/article/view/91685/html> (pls see Table 1-2)

-<https://atm.amegroups.com/article/view/91974/html> (pls see Table 1)

Reply (3): Manuscript adjusted accordingly to meet this criteria

Change in manuscript: Line 210-240 provide 2 tables meeting this criteria

(4) Narrative reviews should also adhere to the narrative review checklist (<https://cdn.amegroups.cn/static/public/18-narrative-review-Checklist.pdf?v=1677118939677>) and each submission should include the Checklist as a supplementary material. The relevant page/line and section/paragraph number in the manuscript should be stated for each item in the checklist. A statement “We present this article in accordance with the narrative review reporting checklist” should be included at the end of the “Introduction”. The manuscript should also include a Reporting Checklist statement in the endnote and indicate, “The authors have completed the narrative review reporting checklist”.

Comment 4: Please provide definitions for all abbreviations mentioned for the first time, such as “AP” in the imaging studies.

Reply 4: Corrected

Comment 5: We suggest that authors provide the full name of all bacteria, e.g. "C. acnes" should be "Cutibacterium acnes" (line 129). In addition, the name of each bacterium should be italicized.

Reply 5: Corrected