Reviewer's report

Title: Adhesion induced chronic abdominal pain: A case report on the diagnostic value of Carnett’s test

Version: 0 Date: 26 Jan 2019

Reviewer: Kam Cheong Wong

Reviewer's report:

1. Do you believe the case report is authentic?
Yes.

2. Do you have any ethical concerns? Please consider if local Institutional Review Board approval or ethical approval was obtained (if appropriate) and if the patient (or their parent or guardian in the case of children under 18) gave written, informed consent to publish this case and any accompanying images. A statement to this effect should appear in the manuscript.
Comments: No.

3. Does the Introduction explain the relevance of the case to the medical literature? NO (please response to my comments below)

The introduction section should be rewritten for the following reasons:

It lacks continuity in the flow of information: the authors write "There are many causes of chronic abdominal pain, such as functional gastrointestinal disorders [1], chronic postoperative pain [2], and abdominal cutaneous nerve entrapment syndrome [3]. It is important to distinguish abdominal wall pain from visceral wall pain by evaluating the patient according to Carnett’s test [4], as chronic abdominal wall pain has been reported as a frequently overlooked problem.” The second sentence is not linked to the first sentence. Readers expect an explanation about the similarities and differences in clinical presentation in abdominal wall pain and visceral wall pain which lead to its overlook resulting in misdiagnosis and inappropriate treatment. Then it makes sense to say that "It is important to distinguish abdominal wall pain from........................."
The sentence "There are many causes of chronic abdominal pain, such as functional gastrointestinal disorders [1], chronic postoperative pain [2], and abdominal cutaneous nerve entrapment syndrome [3]" appears sporadic in listing a few potential causes. It is understandable that the list is not exhaustive. However, the authors may consider a systematic approach in introducing the importance of incorporating anatomy and physiology in clinical reasoning by exploring the potential causes systematically i.e. functional gastrointestinal disorders (e.g. cite literatures), the skin/ innervation (e.g. cutaneous nerve entrapment syndrome), musculoskeletal causes (including referred pain from the spine, e.g. cite literature), the abdominal wall pain (e.g. cite literature)…the visceral wall pain (e.g. cite literature)…iatrogenic (e.g. chronic postoperative pain, cite literature)… infective cause (e.g. chlamydial infection, cite literature). This systematic approach that incorporates anatomy and physiology into clinical reasoning Is explained in the following paper (the authors may consider citing if they agree to the approach): https://jmedicalcasereports.biomedcentral.com/articles/10.1186/s13256-016-0850-6

I note that the authors explain Carnett's test in the discussion section instead of the introduction section. This keeps readers wondering what is Carnett's test at the beginning. The authors may consider explaining Carnett's test generally in the Introduction section (with figures) and then discuss about it in the context of the patient in the discussion section.

4. Does the article report the following information? Where information is missing, please specify.

a. The relevant patient information, including:
   - De-identified demographic information (age, gender, ethnicity)
   - Main symptoms of the patient
   - Medical, family and psychosocial history
   - Relevant past interventions and their outcomes

b. The relevant physical examination findings

c. Important dates and times in this case (if appropriate, organized as a timeline via a figure or table); if specific dates could lead to patient identification, consider including time relevant to initial presentation, i.e. initial presentation at T = 0, follow up at T = 1 month.

d. Diagnostic assessments, including:
   - Diagnostic methods
   - Challenges (e.g., financial, language/cultural)
   - Reasoning and prognostic characteristics (e.g., staging), where applicable
e. Types and mechanism of intervention

f. A summary of the clinical course of all follow-up visits

Comments: The flow of the case presentation needs improvement. Please read my comments below:

The timeline of the case presentation needs improvement. The patient aged 36y at current presentation, his surgical intervention to treat acute cholecystitis was about 4 years ago (when he aged 32y). How was the patient post-surgery recovery? How was the patient's pain threshold (e.g. comparing his acute cholecystitis to the current pain...)? The authors seem to say that the patient was fine till he put on weight...?

The Carnett's test has suggested abdominal wall pain leading to the first intervention of trigger point injection into the abdominal wall. ...... "Since the pain was not relieved completely, we reconsidered other differential diagnoses. We rechecked the abdominal CT scan for suspected adhesion or abdominal hernia at the region of tenderness due to the prior surgical procedure, and asked....." This is a good explanation of why reviewing the patient's symptom in the context of the patient including psycho-social factor (which the authors did), anatomy and physiology is important. The authors may consider emphasizing their clinical reasoning approach e.g. "as the patient's symptom was not relieved after trigger point treatment to the abdominal wall, we then considered the potential cause between the abdominal wall and visceral wall......"

5. Is the interpretation (discussion and conclusion) well balanced and supported by the case presented?
Comments: No (see my comments in 4.)

6. Is the anonymity of the patient protected? Please consider any identifying information in images such as facial features or nametags, whether the patient is named etc. If not, please detail below.
Yes

7. Is the Abstract representative of the case presented? NO
Comments: The roles of Carnett's test (e.g. its main purpose and how incorporating its use with a chronological clinical history can improve diagnostic accuracy) deserve more elaboration. The authors write "The use of laparoscopic adhesiolysis to treat abdominal adhesion is controversial with regard to its safety and effectiveness". This sentence in the abstract makes readers think that the manuscript is focussing on treatment of abdominal adhesion rather than the main objective of diagnosing the cause of abdominal pain as the title suggests.

8. Does the case represent a useful contribution to the medical literature? YES
Comments:
9. Additional comments for the author(s)? The manuscript needs improvement in editing some sentences:

For examples: The authors write "Chlamydial infection is known to bring about right abdominal pain due to intraabdominal adhesion;…” What is "right abdominal pain”? Right upper quadrant? Right lateral abdominal wall?

The authors write "Although the indication of laparoscopic adhesiolysis is required to be carefully selected, the case of restricting daily life because of the adhesion should be considered to conduct.” This sentence is not clear. The above examples are not exhaustive. The authors have to revise the entire manuscript.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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Were you mentored through this peer review?

No