Reviewer's report

Title: Acute abdominal pain in a patient on automated peritoneal dialysis - acute appendicitis: a case report

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Reviewer: alessandra palmisano

Which of the following best describes what type of case report this is?: An unexpected event in the course of observing or treating a patient

Has the case been reported coherently?: Yes

Is the case report authentic?: No

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: No

Is this case worth reporting?: Yes

Is the case report persuasive?: No

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: Yes

Will the case report make a difference to clinical practice?: No

Is the anonymity of the patient protected?: Yes

Comments to authors:

Ekart et al report the case of a 38-year-old patient in peritoneal dialysis who suffered from abdominal pain and who had been diagnosed as affected by peritonitis. After some days of intraperitoneal treatment, conditions of the patient did not improve and an abdominal pathology was suspected. There was some delay to further investigate this situation, in fact after eleven days of treatment without clinical improvement, explorative laparotomy was performed and a gangrenous appendicitis associated to diffuse peritonitis was disclosed. Although surgery, wild antibiotic therapy and intensive care, the outcome of the patient was lethal.

General comment
This case report underlines how the diagnosis of an abdominal surgical pathology such as appendicitis is a challenge in peritoneal dialysis patients and often is terribly delayed. The authors want to stress the importance of providing a correct strategy to exclude intra-abdominal pathology in those patients who do not promptly respond to intra-peritoneal antibiotics.

This case is concise but not well written and does not add any value to the current literature.

The part that describes the case lacks of some important clinical elements (see the following section) and the discussion is focused on a comprehensive description of the possible causes of delay in diagnosis of intra abdominal pathology in peritoneal patients that come out from the patient’s history. A particular emphasis is shown on the controversial role of the CT scans on detecting a surgical abdomen because the peritoneal liquid dilutes the bacterial load and retards abscess formation by rending CT less sensitive. This section should be better described by underlying that a negative CT scan does not rule out an abdominal complication and should lead to further investigations by means of other procedures such as explorative laparoscopy.

In the description of the case, some elements are not clearly described:

• The authors at the admission of the patient measured a cardiac pulse of 143/min with no fever: how they can support that this pulse was “regular”? There was a sinusual tachycardia? ECG was performed on admission? The patient showed a negative wave on inferior wall and mild increase of troponin T. Was the enzymatic curve performed? Furthermore, the authors consecutively described that the patient suffered of pain in both arms and justified that symptom with the suspect of cardiac ischemia. When did the pain in both arms start?? . How they could argue that the myocardial ischemia presented after surgery? From the description “case,” this aspect appears confused and should be reviewed. Could this cardiac event have affected more intensely the clinical outcome?

• I think that it should be deleted from “case” e “discussion” sections the part regarding the gatroenteritis of the patient’s girlfriend. I think that it is not relevant.

Minor points

• A textual analysis by a native speaker of English is strongly suggested because of the presence of some grammatical mistakes and some spelling and syntax errors.

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

**Declaration of competing interests:**

I declare that I have no competing interests