Reviewer's report

Title: Management and Outcome of Bleeding Pseudoaneurysm Associated with Chronic Pancreatitis

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Reviewer: Adrian Saftoiu

Reviewer's report:

General

The manuscript presents a retrospective case series of only 9 patients, describing the management and outcome of bleeding pseudoaneurysms associated with chronic pancreatitis. The study is interesting, showing that surgery is a good option with low morbidity and zero mortality. However, the small number of patients and different management options (surgery versus angiography) precluded clear conclusions. Moreover, the aim of the study is not clear in view of the good results of angiography obtained in expert centers, with achievement of definitive hemostasis and stabilization of critically ill patients.

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

Background
The aim of the present study should be clearly stated in the introduction. The authors stated that the study reports on the clinical management and outcome of bleeding pseudoaneurysms associated with chronic pancreatitis. However, the type of the study and the aim of the study should be better defined. Did the authors tried to compare different treatment arms (embolization versus elective or emergent surgery)? Does this study bring anything new for the management of the patients with bleeding pseudoaneurysms?

Methods
Most of the patients (7) underwent surgery as the initial procedure. Only 2 patients were referred to angiographic embolization as the initial procedure, both of them re-bleed, while one of them died. This section should clearly describe what criteria were used (if any) to select the patients which underwent surgery, as compared with embolization. Moreover, embolization was used after re-bleeding in all three patients who re-bleed and was unsuccessful in two patients. Was embolization recommended as a rescue procedure for the patients with unsuccessful control of the bleeding? The technique of arterial embolization and of the surgical intervention should be also clearly described in this section.

Results
The success rate of arterial embolization and surgery are markedly different, with values of 20% and 88.9%, respectively. Interestingly, there was no surgery-related mortality in this limited case series. A flow chart showing the management and outcome in relation to bleeding pseudoaneurysm is presented in Figure 2. However, the authors do not indicate what are the criteria used for a patient to be selected in a specific arm (embolization, elective or emergent surgery). Based on their experience, as well as previous published reports, can the authors suggest a preferred way for the initial management of these patients? In view of the unclear aims of the study, the exceptional good
figures of surgery as well as the lower success rates of embolization should be at least commented on.

Discussion
The authors should comment in the discussion section the possibility of selection bias for the patients selected for surgery or embolization based on arbitrary criteria. The small number of patients reported should be also commented in the discussion section as it precludes a comparison between different treatment arms.

Most of the authors agree that embolization has immediate effectiveness in most of the cases, but it is clearly related and depends on the expertise of the radiologists. This should be commented in the discussion section, in view of the low success rate of embolization in the present study (1 out of 5 patients). The authors suggested that the low figures for the success rate of embolization in the present study as compared with previous series are explained by the inclusion of chronic pancreatitis patients. This is clearly misleading the readers as most of the cited series included patients with pseudoaneurysms in the setting of acute or chronic pancreatitis, i.e. diseased pancreas.

In the small case series reported the surgical mortality was zero, while most of the papers previously reported indicated a mortality of approximately 20%, similar with the mortality observed after embolization. This should be at least commented on, while the authors should explain what would be their proposed management of bleeding pseudoaneurysm in view of the seemingly better results of surgery in comparison with embolization.

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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)

The title of the paper states that it describes the management and outcome of bleeding pseudoaneurysms. However, the title is misleading the readers as 3 patients did not actually bleed and presented only with pain on admission. Did the patient's symptoms (i.e. hematemesis, melena, hemoperitoneum or the absence of clinical evident bleeding) influence the subsequent decision of therapy? Furthermore, the authors state that the diagnosis of bleeding pseudoaneurysm was based on the findings of angiography, ultrasound, CT and surgery. This further enhances the confusion of terms and should be clearly delineated, as all these imaging methods were used for the localization of pseudoaneurysm, while the diagnosis of bleeding is clearly based on other signs and symptoms.

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Discretionary Revisions (which the author can choose to ignore)

The conclusion that pseudocyst should be treated prophylactically to prevent life-threatening bleeding is very difficult to support in view of the retrospective protocol and findings of the present study. A follow-up study of patients with pseudocysts that would subsequently develop or not bleeding pseudoaneurysm is impossible to design in view of the small number of patients diagnosed. This conclusion should be deleted.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory 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