Author's response to reviews

Title: Colo-pexy as a treatment option for the management of acute transverse colon volvulus: a case report.

Authors:

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Version: 3 Date: 23 November 2011

Author's response to reviews: see over
Author’s response to reviews

Title: Colo-pexy as a treatment option for the management of acute transverse colon volvulus: a case report

Authors:

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Version 2 date: 23 November 2011

Authors’ response to reviews: see over
Thank you for consideration of the above manuscript for publication. We have taken into account all reviewers comments as described below.

**Reviewer's report**

Title: Colo-pexy as a treatment option for the management of acute transverse colon volvulus: a case report  
**Version:** 1 **Date:** 14 September 2011  
**Reviewer 1:** Francis Seow-Choen

**Which of the following following best describes what type of case report this is?:** Other

If other, please specify:  
This reiterates the aetiology, presentation and treatment methods available and shows a new method of its treatment.

**Has the case been reported coherently?:** Yes

**Is the case report authentic?:** Yes

**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?:** Yes

**Does the case report have explanatory value?:** Yes

**Does the case report have diagnostic value?:** Yes

**Will the case report make a difference to clinical practice?:** Yes

**Is the anonymity of the patient protected?:** Yes

**Comments to authors:**

A good review and suggestion of a way to manage transverse colon volvulus in a patient without necrosis of the involved part.  
Quality of written English

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Good except that I am unsure that that "detorsed"and "volved" are not
neologisms? Please confirm and reject if so and use simpler and commoner words.

“Detorsed” and “detorsion” have been removed from the manuscript: Abstract, Introduction, line 2; Discussion paragraph 5, lines 2, 7, 8.

In the abstract “surgical detorsion” has been changed to “surgical resection or correction”.

In the discussion “surgically detorsed” has been replaced with “transverse colon volvulus must be surgically corrected”.

In the discussion “compared to detorsion” has been changed to “compared to colopexy”.

In the discussion “ Detorsion with...” has been deleted.

“Volved” has been removed from the manuscript: Case presentation, paragraph 3, line 5.

This has been replaced by the following: “There was a volvulus of the transverse colon...”

Declaration of competing interests:
'I declare that I have no competing interests'

Reviewer's report
Title: Colo-pexy as a treatment option for the management of acute transverse colon volvulus: a case report
Version: 1 Date: 17 September 2011
Reviewer 2: Neil Smith

Which of the following following best describes what type of case report this is?: Other

If other, please specify:
report of a new treatment option for a rare variation of a common surgical problem (transverse colon volvulus)

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes
Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: No

Does the case report have explanatory value?: Yes

Does the case report have diagnostic value?: No

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

Is the anonymity of the patient protected?: Yes

Comments to authors:
(Case presentation para 3) the authors description of the position of the transverse colonic mesentery is unclear. They appear to suggest that the mesentery is congenitally arising above the liver- i don't understand what the authors mean. A description of the position of the root of the mesentery and its path, with the associated position of the colon itself might be helpful.

In terms of the lack of clarity in the description of the position of the transverse colon, there is a section added onto the second paragraph of the case presentation, describing the root of the transverse mesocolon as taking origin from the right upper quadrant – the site at which the volvulus was found intra-operatively.

the authors state that "many authors advocate resection even when the bowel is viable as there is virtually no risk of recurrence" (discussion para 5). That is the crux of the argument - we have no idea whether the proposed strategy of colopexy in this case is a good option, because it is too early to judge. Certainly it avoids the risks inherent in resection/anastomosis, but in a young fit patient, I suspect most surgeons would advocate a definitive treatment (resection). I would like to see a more robust justification for the clinical strategy applied here.

In the discussion, paragraph 5 of the original manuscript has been re-written and an additional paragraph added to discuss the two main surgical treatment options for transverse colon volvulus. The two options being resection with a primary anastomosis/stoma versus colopexy. Pros and cons of both procedures are discussed, in particular the main drawback of colopexy (recurrence of the volvulus) is talked of. Below is what has been added:
With regards to management, in contrast to sigmoid volvulus, which can often be
decompressed during sigmoidoscopy, transverse colon volvulus must be surgically corrected
[13]. When necrosis has occurred, resection of the non-viable tissue may take the form of
resection with primary anastomosis or resection with colostomy or ileostomy and mucous
fistula [5]. However, many authors advocate segmental transverse colectomy or an
extended right colectomy as the treatment of choice, even in the event of the bowel being
viable, as it carries virtually no risk of recurrence when compared to colopexy which has a
reported risk of 30-75% of recurrence. Indeed it has also been documented that it is not
uncommon that such patients have presented previously with self-limiting episodes of
subacute obstruction. This is thought to be due to the intermittent volvulus of the transverse
colon [4].

The argument in favour of colopexy over resection for viable bowel resides in eliminating the
risks associated with the latter option. These include risks of anastomotic leak, paralytic
ileus, stenosis and the need for a stoma; all of which carry considerable morbidity as well as
mortality [15]. Thus it would appear that colopexy appears the safer short-term option for
the patient with viable bowel intra-operatively, whilst resection could potentially be
preferable in the long-run. The wide recurrence rate reported is dated, however, and no
colopexy technique utilised is entirely identical. This makes it difficult to fully justify a
resection in such a group of patients currently [14]. The clear limitation with the case
presented here is that whilst we have seen the patient recovery six months from surgery, the
long-term success of the technique described here is unknown.
Minor issues not for publication: typo "detorsed" (Discussion para 5 line 2)
unclear meaning "the technique... to prevent recurrence anatomy has been demonstrated..."(Conclusion, final sentence) - is the word "anatomy" superfluous, or do they mean to imply correction (rather than prevention) of anatomical issues that predispose to recurrence?

“Detorsed” and “detorsion” have been removed from the manuscript:
Abstract, Introduction, line 2; Discussion paragraph 5, lines 2, 7, 8.

In the abstract “surgical detorsion” has been changed to “surgical resection or correction”.

In the discussion “surgically detorsed” has been replaced with “transverse colon volvulus must be surgically corrected”.

In the discussion “compared to detorsion” has been changed to “compared to colopexy”.

In the discussion “ Detorsion with...” has been deleted.

The final sentence of the conclusion has been changed from “the technique of fixing the greater omentum in anterior abdominal wall pouch to prevent recurrence anatomy has been documented here as a successful method of treatment that should be considered.”
To: “The technique of fixing the greater omentum in anterior abdominal wall pouches to correct anatomy prevent recurrence anatomy has been demonstrated here as a successful method of treatment in the short-term that should be considered.”

Quality of written English: Acceptable

Declaration of competing interests:
I declare that I have no competing interests

Reviewer's report
Title: Colo-pexy as a treatment option for the management of acute transverse colon volvulus: a case report
Version: 1 Date: 18 September 2011
Reviewer 3: Paras Jethwa
Which of the following best describes what type of case report this is?:
Presentations, diagnoses and/or management of new and emerging Diseases

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is the case report ethical?: Yes

Is there any missing information that you think must be added before publication?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: No

Does the case report have explanatory value?: Yes

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:

This is essentially a well researched and well laid out report on an unusual condition. The case has been satisfactorily researched & this is clearly apparent in the discussion. There a few minor grammatical errors but on the whole the report reads well and is informative.
The title "a treatment option" is satisfactory but would be better when other options are reviewed/considered (see below).

We believe the title is now satisfactory as we have included a longer discussion of the surgical treatment options as stated below (Discussion, paragraph 5 & 6), in particular the pros and cons of using colopexy or resection as choices for treatment of the volvulus.

The discussion paragraphs regarding radiology and aetiology need to be more concise as they tend to come across as a touch repetitive.
In the discussion the paragraph regarding aetiology has been made more concise and replaced by the following:

**Aetiology can be acquired or congenital in nature [5-7]. The former commonly is due to adhesions, inflammatory strictures, carcinoma or malposition of the colon following previous surgery [5-8].**

**Mechanical causes include adhesions, inflammatory strictures, carcinoma, distal colonic obstruction, submucosal hamartomas, mobility of the right colon and malposition of the colon following previous surgery [5-8]. One case has been attributed to pseudomembranous colitis [9] and in another scleroderma may have been implicated [4]. Chronic constipation can be causative as it leads to elongation and redundancy of the colon, permitting volvulus even in the presence of a normal mesentery [2-4, 8, 10]. Other predisposing factors include prolonged bedrest, institutionalisation, laxative abuse and a high fibre diet [3].**

**Congenital errors include midgut malrotation, resulting in abnormal fixation [2, 4, 8], congenital megacolon [8], elongation and redundancy of the transverse colon and narrowing, absence or malfixation of the mesenteries and their attachments [11], this being the latter aetiology being observed in the case presented herein this article.**

**Transverse colon volvulus has been described in the literature as subacute-progressive or fulminating [12]. Fulminating volvulus is a more aggressive form, rapidly progressing due to closed loop obstruction resulting in vascular compromise [4]. The subacute form, presents with more subtle signs of obstruction [5, 6], comes with a sudden onset of severe abdominal pain, rebound tenderness, vomiting, mild distension and rapid clinical deterioration [5, 12]. Such symptoms are due to a closed loop obstruction and vascular compromise [4]. The subacute-progressive form presents with massive abdominal distension, mild abdominal pain without rebound tenderness and little or no nausea or vomiting [5,6].**
In addition the section on radiology within the discussion has shortened (below), as well as the repetition of radiology already described in the case presentation has been removed from the new manuscript.

Radiologically, it is classic to find a ‘bent inner tube’ sign on the plain abdominal film [5] or a ‘bird’s beak’ deformity on contrast enema [7]. In the case presented here there was evidence of Chilaiditi’s Syndrome—the radiographic finding of the colon, usually the hepatic flexure, interposed between the liver and diaphragm giving the appearance of a pneumoperitoneum—plus symptoms of abdominal pain, nausea, vomiting, abdominal distension and constipation [7].

My major concern is that, by the authors own admission, is that colopexy is a less satisfactory treatment option by comparison to an extended R hemicolectomy and the basis of the former treatment being adopted here is not discussed. In the absence of this and better discussion of the other options it is difficult to recommend publication at this stage. A fuller discussion of these options at time of rewriting would be very beneficial.

In the discussion, paragraph 5 of the original manuscript has been re-written and an additional paragraph added to discuss the two main surgical treatment options for transverse colon volvulus. The two options being resection with a primary anastomosis/stoma versus colopexy. Pros and cons of both procedures are discussed, in particular the main drawback of colopexy (recurrence of the volvulus) is talked of. Below is what has been added:

With regards to management, in contrast to sigmoid volvulus, which can often be decompressed during sigmoidoscopy, transverse colon volvulus must be surgically corrected [13]. When necrosis has occurred, resection of the non-viable tissue may take the form of resection with primary anastomosis or resection with colostomy or ileostomy and mucous fistula [5]. However, many authors advocate segmental transverse colectomy or an extended right colectomy as the treatment of choice, even in the event of the bowel being viable, as it carries virtually no risk of recurrence when compared to colopexy which has a
reported risk of 30-75% of recurrence. Indeed it has also been documented that it is not uncommon that such patients have presented previously with self-limiting episodes of subacute obstruction. This is thought to be due to the intermittent volvulus of the transverse colon [4].

The argument in favour of colopexy over resection for viable bowel resides in eliminating the risks associated with the latter option. These include risks of anastomatic leak, paralytic ileus, stenosis and the need for a stoma; all of which carry considerable morbidity as well as mortality [15]. Thus it would appear that colopexy appears the safer short-term option for the patient with viable bowel intra-operatively, whilst resection could potentially be preferable in the long-run. The wide recurrence rate reported is dated, however, and no colopexy technique utilised is entirely identical. This makes it difficult to fully justify a resection in such a group of patients currently [14]. The clear limitation with the case presented here is that whilst we have seen the patient recovery six months from surgery, the long-term success of the technique described here is unknown.

Quality of written English: Acceptable

Declaration of competing interests:
No competing interests.

Additional changes to the manuscript include:

- Inclusion of the patient’s ethnicity in the introduction section of the main manuscript as well as the abstract.
- In the case presentation the patient’s medical background has been made more concise.
• Paragraph 3 of the case presentation – changes in wording to describe the nature of the colopexy have been made for clarity.

Many thanks for re-considering the revised manuscript.