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- Comments from the reviewers and editors (email to author requesting revisions)
- Response from the author (cover letter submitted with revised manuscript)*

**The corresponding author has opted to make this information publicly available.*

Personal or nonessential information may be redacted at the editor's discretion.

Questions about these materials may be directed to the *Obstetrics & Gynecology* editorial office: obgyn@greenjournal.org.

Date: Sep 09, 2022
To: "Ioana Fugaru" [redacted]
From: "The Green Journal" em@greenjournal.org
Subject: Your Submission ONG-22-1387

RE: Manuscript Number ONG-22-1387

Vesicouterine and uteroduodenal fistula presenting 10 years after uterine artery embolization for uterine leiomyomas: A case report

Dear Dr. Fugaru:

Thank you for sending us your work for consideration for publication in Obstetrics & Gynecology. Your manuscript has been reviewed by the Editorial Board and by special expert referees. The Editors would like to invite you to submit a revised version for further consideration.

If you wish to revise your manuscript, please read the following comments submitted by the reviewers and Editors. Each point raised requires a response, by either revising your manuscript or making a clear argument as to why no revision is needed in the cover letter.

To facilitate our review, we prefer that the cover letter you submit with your revised manuscript include each reviewer and Editor comment below, followed by your response. That is, a point-by-point response is required to each of the EDITOR COMMENTS (if applicable), REVIEWER COMMENTS, STATISTICAL EDITOR COMMENTS (if applicable), and EDITORIAL OFFICE COMMENTS below. Your manuscript will be returned to you if a point-by-point response to each of these sections is not included.

The revised manuscript should indicate the position of all changes made. Please use the "track changes" feature in your document (do not use strikethrough or underline formatting).

Your submission will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Sep 30, 2022, we will assume you wish to withdraw the manuscript from further consideration.

EDITOR COMMENTS:

Please simplify the title if possible.

REVIEWER COMMENTS:

Reviewer #1:

I have the following questions and comments

1. At some point, it might be worth discussing if you think embolizing a 41-year-old was a good idea. We know the failure rate is high, which is what happened here. What was this patient's goal for therapy 10 years ago? Why did she choose the UAE? How was she counseled? In my community, there are a lot of predatory embolization centers that engage in unethical direct marketing to patients for financial gain, targeting inappropriate candidates.

2. Lines 62-64. Initial presentation. Which specialties/services evaluated the patient? Urology? Gyn?

3. MRI is useful in understanding fibroid burden/anatomy and helpful for surgical planning. Was this considered here?

4. Line 80. In the OR, was a vaginal exam done to see where the dye was coming out of?

5. Was the patient bleeding? Was hysteroscopy and endometrial sampling considered at the time of cystoscopy? Was uterine malignancy/leiomyosarcoma considered on differential?

6. Line 85. When contrast was seen in the colon during CT cystogram, why were endoscopy and colonoscopy not done?

How about CT with oral contrast?

7. Line 89. How was it decided to do an open hysterectomy? Why MIS was not considered?

8. In the photo, looks like a low transverse incision. How was this decided on instead of vertical midline?

9. Line 91. Where exactly was the fistula located on the bladder and on the uterus?

10. Why supracervical hysterectomy was done?

11. Line 92. How big was the uterus? Where exactly was the duodenum attached? Do you have a photo of this?

12. Did the patient have any vaginal discharge that might clue into GI fistula?

Reviewer #2: Review for Manuscript ONG-22-1387

Title: Vesicouterine and uteroduodenal fistula presenting 10 years after UAE for uterine leiomyomas: a case report

Precis—would change wording—eliminate "This is the only published case of" and reword from there.

Abstract:
- Line 26- take out "has been", the procedure IS available

- Line 29: "previously that had undergone"—wording and grammar here.

- Line 33: comma after cystectomy as it is still part of the listed procedures.

- Line 37: you take the time to point out the delayed vesicouterine presentation, are there data/publications regarding the uteroduodenal fistula component? It feels imbalanced to point out one and not the other

Background:
- Line 49: what do you mean by "preserving the normal uterus"

- Line 49-52: this sentence is awkward and needs to be reworded to be more succinct and clear

- Line 54: "Main reported UAE complications"—use standard phrasing of "primary" etc.

Case
- Line 59-60: this is not written per standard phrasing. Use of "previously known for" reads awkwardly

- Line 60: you use the word "previous" 2 sentences in a row

- Line 62: when exactly along the 10 year time frame was symptom recurrence? Truly 10 years out?

- Just to clarify—she had 2 CT scans (CT and a CT Urogram) in a 2 wk period with findings so different? Her first scan didn't comment on the fibroids/air?

- Line 66: change 12,3 12.2 for hemoglobin

- Line 66: Hgb is not a vital sign, so clarify that sentence

- Line 67-70—was radiologist consulted and 2 CT scans reviewed with such a discrepancy/change?

- Line 73- what is the dome junction? Are you talking about the dome? Trigone?

- Line 78: "leading to the uterine wall"—doesn't make sense. If you are in the fistulous tract, how did you identify the "uterine wall" and what do you mean by "wall"? I'm assuming you cannot see the serosal changes of the uterus? The wall—is that the myometrium? How did you know you were there until the methylene was injected?

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- Line 90—"bulk of fibrous tissue reminiscent of chronic inflammation"—awkward wording

- Line 91—what do you mean "subtotal hysterectomy"—did you intentionally leave myometrium behind? You mention

the cervix on the path report. This is not standard language for hysterectomy.

- Line 91—fourth part of the duodenum - most commonly referred to as ascending

- Line 98—was this a repeat biopsy of the bladder of the biopsy from the cysto?

- Line 103—so any particular management of the vaginal cuff since path in the cervix was digested food matter?

Discussion:
- What exactly do you mean in line 108-109—you are saying that a degenerating calcified fibroid is sloughing calcified material through the fistula into the bladder? How large was the fistula (no measurements given)? You don't typically have sloughing calcifications from fibroids. Was this fibroid serosal/pedunculated?

- Line 113—you have report/reported 2x

- Line 117—sub or asymptomtic? Again, you suggest that she was completely normal/asymptomatic until 10 years out with new onset hematuria

Figure 1—move the black arrow to point at the lesion

Figure 3—the CT demonstrates a fistula—was this questioned? Or was there concern for perforation? Why wasn't general surgery notified in advance and brought in as a intraop consult? Would also consider changing from thin/thick white/black arrows to maybe different shapes?

Questions
- what about PMH for the patient? any radiation or prior surgical history? did she truly have no urine/foul smelling discharge x 10 years? what was the inciting event for the hematuria then?

- 3 CT scans in short duration-- was this needed? what did you learn and how would you recommend eval in the future

EDITORIAL OFFICE COMMENTS:

1. If your article is accepted, the journal will publish a copy of this revision letter and your point-by-point responses as supplemental digital content to the published article online. You may opt out by writing separately to the Editorial Office at em@greenjournal.org, and only the revision letter will be posted.

2. When you submit your revised manuscript, please make the following edits to ensure your submission contains the required information that was previously omitted for the initial double-blind peer review:
* Funding information (ie, grant numbers or industry support statements) should be disclosed on the title page and at the end of the abstract. For industry-sponsored studies, describe on the title page how the funder was or was not involved in the study.
* Include clinical trial registration numbers, PROSPERO registration numbers, or URLs at the end of the abstract (if applicable).
* Name the IRB or Ethics Committee institution in the Methods section (if applicable).
* Add any information about the specific location of the study (ie, city, state, or country), if necessary for context.

3. Obstetrics & Gynecology's Copyright Transfer Agreement (CTA) must be completed by all authors. When you uploaded your manuscript, each coauthor received an email with the subject, "Please verify your authorship for a submission to Obstetrics & Gynecology." Please ask your coauthor(s) to complete this form, and confirm the disclosures listed in their CTA are included on the manuscript's title page. If they did not receive the email, they should check their spam/junk folder. Requests to resend the CTA may be sent to em@greenjournal.org.

4. ACOG uses person-first language. Please review your submission to make sure to center the person before anything else. Examples include: "People with disabilities" or "women with disabilities" instead of "disabled people" or "disabled women"; "patients with HIV" or "women with HIV" instead of "HIV-positive patients" or "HIV-positive women"; and "people who are blind" or "women who are blind" instead of "blind people" or "blind women."

5. The journal follows ACOG's Statement of Policy on Inclusive Language (https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2022/inclusive-language). When possible, please avoid using gendered descriptors in your manuscript. Instead of "women" and "females," consider using the following: "individuals;" "patients;" "participants;" "people" (not "persons"); "women and transgender men;" "women and gender-expansive patients;" or "women and all those seeking gynecologic care."

6. Standard obstetric and gynecology data definitions have been developed through the reVITALize initiative, which was

convened by the American College of Obstetricians and Gynecologists and the members of the Women's Health Registry Alliance. Obstetrics & Gynecology has adopted the use of the reVITALize definitions. Please access the obstetric data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-obstetrics-data-definitions and the gynecology data definitions at https://www.acog.org/practice-management/health-it-and-clinical-informatics/revitalize-gynecology-data-definitions. If use of the reVITALize definitions is problematic, please discuss this in your point-by-point response to this letter.

7. Make sure your manuscript meets the following word limit. The word limit includes the manuscript body text only (for example, the Introduction through the Discussion in Original Research manuscripts), and excludes the title page, précis, abstract, tables, boxes, and figure legends, reference list, and supplemental digital content. Figures are not included in the word count.

Case Reports: 1,500 words

8. For your title, please note the following style points and make edits as needed:
* Do not structure the title as a declarative statement or a question.
* Introductory phrases such as "A study of..." or "Comprehensive investigations into..." or "A discussion of..." should be avoided in titles.
* Abbreviations, jargon, trade names, formulas, and obsolete terminology should not be used.
* Titles should include "A Randomized Controlled Trial," "A Meta-Analysis," "A Systematic Review," or "A Cost-Effectiveness Analysis" as appropriate, in the subtitle. If your manuscript is not one of these four types, do not specify the type of manuscript in the title.

9. Specific rules govern the use of acknowledgments in the journal. Please review the following guidelines and edit your title page as needed:

* All financial support of the study must be acknowledged.
* Any and all manuscript preparation assistance, including but not limited to topic development, data collection, analysis, writing, or editorial assistance, must be disclosed in the acknowledgments. Such acknowledgments must identify the entities that provided and paid for this assistance, whether directly or indirectly.
* All persons who contributed to the work reported in the manuscript, but not sufficiently to be authors, must be acknowledged. Written permission must be obtained from all individuals named in the acknowledgments, as readers may infer their endorsement of the data and conclusions. Please note that your response in the journal's electronic author form verifies that permission has been obtained from all named persons.
* If all or part of the paper was presented at the Annual Clinical and Scientific Meeting of the American College of Obstetricians and Gynecologists or at any other organizational meeting, that presentation should be noted (include the exact dates and location of the meeting or indicate whether the meeting was held virtually).
* If your manuscript was uploaded to a preprint server prior to submitting your manuscript to Obstetrics & Gynecology, add the following statement to your title page: "Before submission to Obstetrics & Gynecology, this article was posted to a preprint server at: [URL]."
* Do not use only authors' initials in the acknowledgement or Financial Disclosure; spell out their names the way they appear in the byline.

10. Provide a précis for use in the Table of Contents. The précis is a single sentence of no more than 25 words that states the conclusion(s) of the report (ie, the bottom line). The précis should be similar to the abstract's conclusion. Do not use commercial names, abbreviations, or acronyms in the précis. Please avoid phrases like "This paper presents" or "This case presents."

11. Be sure that each statement and any data in the abstract are also stated in the body of your manuscript, tables, or figures. Statements and data that appear in the abstract must also appear in the body text for consistency. Make sure there are no inconsistencies between the abstract and the manuscript, and that the abstract has a clear conclusion statement based on the results found in the manuscript.

In addition, the abstract length should follow journal guidelines. Please provide a word count.

Case Reports: 125 words

12. Only standard abbreviations and acronyms are allowed. A selected list is available online at http://edmgr.ovid.com/ong/accounts/abbreviations.pdf. Abbreviations and acronyms cannot be used in the title or précis. Abbreviations and acronyms must be spelled out the first time they are used in the abstract and again in the body of the manuscript.

13. Your manuscript contains a priority claim, which means you state your study is the first of its kind or the largest study to date. We discourage such claims, since they are often difficult to prove. If this is based on a systematic search of the literature, that search should be described in the text (search engine name, search terms, date range of search, and languages encompassed by the search). If it is not based on a systematic search but only on your level of awareness, please delete or rephrase this statement.

14. Please review examples of our current reference style at https://edmgr.ovid.com/ong/accounts/ifa_suppl_refstyle.pdf.

Include the digital object identifier (DOI) with any journal article references and an accessed date with website references.

Unpublished data, in-press items, personal communications, letters to the editor, theses, package inserts, submissions, meeting presentations, and abstracts may be included in the text but not in the formal reference list. Please cite them on the line in parentheses.

If you cite ACOG documents in your manuscript, be sure the references you are citing are still current and available. Check the Clinical Guidance page at https://www.acog.org/clinical (click on "Clinical Guidance" at the top). If the reference is still available on the site and isn't listed as "Withdrawn," it's still a current document. In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript.

Please make sure your references are numbered in order of appearance in the text.

15. Figures 1-4: Please upload as figure files on Editorial Manager.

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If your article is accepted, you will receive an email from the Editorial Office asking you to choose a publication route (traditional or open access). Please keep an eye out for that future email and be sure to respond to it promptly.

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If you choose to revise your manuscript, please submit your revision through Editorial Manager at http://ong.editorialmanager.com. Your manuscript should be uploaded as a Microsoft Word document. Your revision's cover letter should include a point-by-point response to each of the received comments in this letter. Do not omit your responses to the EDITOR COMMENTS (if applicable), the REVIEWER COMMENTS, the STATISTICAL EDITOR COMMENTS (if applicable), or the EDITORIAL OFFICE COMMENTS.

If you submit a revision, we will assume that it has been developed in consultation with your coauthors and that each author has given approval to the final form of the revision.

Again, your manuscript will be maintained in active status for 21 days from the date of this letter. If we have not heard from you by Sep 30, 2022, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,
John O. Schorge, MD
Deputy Editor, Gynecology

_____

Ioana Fugaru, MD, MSc
McGill University, Department of Surgery
Division of Urology
[redacted]

Re: "Vesicouterine and uteroduodenal fistula presenting 10 years after uterine artery embolization" – Reply to Revisions

Dear Editor,

Thank you for your time. We have received the comments from the reviewers. We are grateful for the comments received and for the opportunity to improve our paper. Please find attached a document highlighting the answers to each comment and a new version of our submission.

Once again, we are grateful for your consideration.

Sincerely yours,

Dr Ioana Fugaru, MD MSc
Corresponding author

Editor Comment:

We have simplified the title to "Vesicouterine and uteroduodenal fistula presenting 10 years after uterine artery embolization"

Comments from Reviewer #1:

1. At some point, it might be worth discussing if you think embolizing a 41-year-old was a good idea. We know the failure rate is high, which is what happened here. What was this patient's goal for therapy 10 years ago? Why did she choose the UAE? How was she counseled? In my community, there are a lot of predatory embolization centers that engage in unethical direct marketing to patients for financial gain, targeting inappropriate candidates.

This is a very good question. This patient had embolization in another country and we have no documentation of the counseling that was performed at the time. This patient had multiple and very large fibroids. It is known that embolization is a better treatment for patients with a single fibroids and bleeding. However, we do not have the documentation nor the information of how this patient elected to get embolization at the age of 41, thus we cannot comment on this aspect. In retrospect, with the presentation she had 10 years later and the complication she had from her embolization, we can certainly state that this was not the best management for her. We have added a comment to explain this situation.

2. Lines 62-64. Initial presentation. Which specialties/services evaluated the patient? Urology? Gyn?

The patient was initially evaluated by urology when she presented to the emergency room with gross hematuria on her first two visits. After performing the initial investigations and managing her acute gross hematuria, urology performed cystoscopy and identified the vesicouterine fistula. Knowing that the patient was scheduled to undergo an elective hysterectomy, urology contacted the patient's gynaecologist who then became actively

involved in the patient's care. We have added a comment to explain this situation.

3. MRI is useful in understanding fibroid burden/anatomy and helpful for surgical planning. Was this considered here?

This is indeed a good point. First and foremost, the patient was already waiting for the hysterectomy given that she had chronic pelvic pain that was increasing, before her presentation with hematuria. In order to perform the hysterectomy, an ultrasound as imaging would have been sufficient for a standard case. As noted by the reviewers, this patient had 3 CT scans done and was already set to undergo surgical management. The surgical teams had tried to identify the site of the fistula with colonoscopy, which was deemed technically challenging and incomplete. It had been decided that the patient would have exploratory laparotomy and thus, we do not believe that MRI would have changed this patient's management. Furthermore, the general surgery team had been informed of the contrast in the colon finding and, given that the time to surgery was 1 week, they offered their presence in the operating room in order to evaluate the entire bowel. Secondly, there was no clue towards a uteroduodenal fistula, and thus, it could have been easily missed on MRI as well as the area may not have been included in the scan. Also, MRI access in our institution and province can be difficult, and the patient had surgery planned in the following days. For the surgical team, the patient was already suffering from her vesicouterine fistula, had already been scheduled for hysterectomy due to increasing pelvic pain from her fibroids, and the CT scans that were performed were sufficient to suspect an enteric fistula, with its exact location to be determined intra-operatively.

4. Line 80. In the OR, was a vaginal exam done to see where the dye was coming out of?

The patient had a dye exam during her cystoscopy by the urology service as reported, and

was positive. A dye exam was not repeated in the operating room as the location of the uteroduodenal fistula was easily identified by the general surgery team who were able to repair it primarly. Then, the general surgeons ran the entire bowel and did not identify any other fistulous tracts. Finally, the vesicouterine fistula was well known due to the previous cystoscopy and dye test and was easily excised, and no other fistulas were identified by the urologists who opened the bladder, and after excising the posterior/dome fistula tract, tested their bladder closure with 500 cc of NS and did not identify any leak.

5. Was the patient bleeding? Was hysteroscopy and endometrial sampling considered at the time of cystoscopy? Was uterine malignancy/leiomyosarcoma considered on differential?

The patient did not have vaginal bleeding, only gross hematuria. Indeed, this is an important consideration. A leiomyosarcoma is always a concern in a patient with fibroids, but hers were deemed to be stable as compared to previous images 2019 (which did not pick any of the hereby reported findings). Of note, the urology team biopsied the vesico-uterine fistious tract prior to excising it, and the pathology returned negative.

6. Line 85. When contrast was seen in the colon during CT cystogram, why were endoscopy and colonoscopy not done? How about CT with oral contrast?

The patient did indeed undergo colonoscopy as part of the evaluation. It was mostly a resctosigmoidoscopy as the gastroenterologist could not enter into the descending colon. The gastroenterologist felt that everything was ‘stuck” and that he could not bypass the angle. Upper GI endoscopy was not performed as there was no suspicion that the source of the uteroenteric fistula would be from the duodenum on the CT cystogram that revealed the contrast in the colon. At the time, the patient was already scheduled for hysterectomy in the following days, and thus, it was decided, combined with general surgery, that the patient would have exploration. The patient had already had 3 CT scans

over the span of 2 weeks, and with the surgery so close, we elected to stop imaging and did not perform a CT with oral contrast. Changes in the text have been made to reflect this comment.

7. Line 89. How was it decided to do an open hysterectomy? Why MIS was not considered?

Indeed MIS approaches can be of great help in some select cases. However, for this patient, given the pre-operative findings of the vesicouterine fistula and the suspected enteric fistula as well, the gynecology team knew there would be need for bladder repair, bowel exploration involving three different surgical teams and that this could become a potentially complex procedure. This case could only be perfomed with excellent exposure and with the ability to run the bowel in order to assess it fully. We have clarified the circumstances of the surgery involving the three surgical teams from the beginning and using a midline laparotomy incision.

8. In the photo, looks like a low transverse incision. How was this decided on instead of vertical midline?

The incision that was performed was a vertical midline, unfortunately it is not easily assessed on the pictures we have of the fistula. We have added a sentence to clarify this.

9. Line 91. Where exactly was the fistula located on the bladder and on the uterus?

The fistula was located at the level of the posterior bladder wall, near to the dome, but not at the level of the dome of the bladder, between an anterior intramural fibroid. In order to simplify, we have adjusted to consistently use posterior bladder wall and avoid terms previously used like at the “junction of the posterior bladder wall with the dome”, etc. Edits have been made in the text to clarify this.

10. Why supracervical hysterectomy was done?

A supracervical hysterectomy was done due to the presence of many adhesions cervix/bladder. The planes were very difficult to dissect, especially at the level of the cervix. The patient had had normal pre-operative Pap test and did not report vaginal bleeding. Thus, the upper part of the cervix was removed but the lower part of the cervix could not be dissected further due to extremely adhesive tissues. This has been clarified in the text.

11. Line 92. How big was the uterus? Where exactly was the duodenum attached? Do you have a photo of this?

The uterus was about 18 week size. The general surgeons noted that there was a lot of small bowel mesentery that was stuck to the large fibroids. Then, the duodenum was identified to be stuck to a large fibroid. We have attached a picture of a scan demonstrating how large the fibroids were and how close they seemed to be with small bowel. Also, we have attached a picture of the duodenal fistula.

12. Did the patient have any vaginal discharge that might clue into GI fistula?

The patient did not complain of vaginal discharge. The patient presented with a history of gross hematuria and mentioned having passed at home a large stone, suspected to have passed per urethra.

Comments from Reviewer #2:

Title: Vesicouterine and uteroduodenal fistula presenting 10 years after UAE for uterine leiomyomas: a case report

Precis—would change wording—eliminate "This is the only published case of" and reword from there. Correction done

Abstract:

- Line 26- take out "has been", the procedure IS available
- Corrected.

- Line 29: "previously that had undergone"—wording and grammar here.

- Corrected

- Line 33: comma after cystectomy as it is still part of the listed procedures.

- Corrected

Line 37: you take the time to point out the delayed vesicouterine presentation, are there data/publications regarding the uteroduodenal fistula component? It feels imbalanced to point out one and not the other.

There are no reports for uteroduodenal fistulas. However, we have added a report about uterine and small bowel fistulas in our review of the literature and mentioned that there are no uteroduodenal fistulas that we have identified in our review of literature.

Background:

- Line 49: what do you mean by "preserving the normal uterus"
  We have rephrased.

- Line 49-52: this sentence is awkward and needs to be reworded to be more succinct and clear. We have rephrased.

- Line 54: "Main reported UAE complications"—use standard phrasing of "primary" etc. We have rephrased.

Line 59-60: this is not written per standard phrasing. Use of "previously known for" reads awkwardly We have rephrased.

Line 60: you use the word "previous" 2 sentences in a row. Corrected.

Line 62: when exactly along the 10 year time frame was symptom recurrence?

The patient began complaining of worsening pelvic pain 9 years after the embolization, and sought medical attention for it. As her main concern was pelvic pain, it was not addressed properly until she was assessed by the gynecological team who suspected that her large fibroids, post embolization, may be responsible for this chronic pelvic pain. She was counseled that a hysterectomy to remove the bulky fibroids, which were assessed at the time to be 14 weeks in size, could be helpful for her symptoms and the patient was ready to go ahead with the procedure. However, when this counseling was

done and the patient was placed on the surgical wait list for hysterectomy, we had no idea that she had these two fistulas. However, the patient presented acutely in the emergency room with gross hematuria, which was a new finding. It is possible that the gross hematuria was caused by the erosion of the bladder wall when it occurred. We have clarified (line 62-63).

Just to clarify—she had 2 CT scans (CT and a CT Urogram) in a 2 wk period with findings so different? Her first scan didn't comment on the fibroids/air?

Indeed, the patient had 2 CT scans in a very short period of time. The first CT was obtained by the ER when patient presented with suprapubic pain and gross hematuria. It was requested to be done non contrast, as the suspected diagnosis was a renal stone by the emergency physician. She had a large bladder stone that was identified in the bladder. Indeed the calcified fibroids were also seen on the initial CT. There was a minimal amount of air on the first scan that was attributed to recent urinary instrumentation in the emergency room, whereas on the second scan, there was a significantly increased amount of air present prior to catheterization. We have adjusted the text so as to reflect this clarification (lines 65-67 and line 73-74).

Line 66: change 12,3□12.2 for hemoglobin, the change has been done

Line 66: Hgb is not a vital sign. The change has been done

Line 67-70—was radiologist consulted and 2 CT scans reviewed with such a discrepancy/change?

The CT scans were discussed with the radiologists. It was initially suspected that the patient had received oral contrast the previous days, but after verification, she had not.

The radiologist could identify contrast in the colon but could not identify the source of the leakage. Due to the strong suspicion of an enteric fistula, the radiologist suggested a colonoscopy, which was attempted but could not be complete due to difficulty in accessing the descending colon. Thus, general surgery was contacted, and given that the patient's surgery was scheduled to occur in the next following 7 days, it was elected to simply explore the bowel once open.

Line 73- what is the dome junction? Are you talking about the dome? Trigone?

We are talking about the dome. Thus we have clarified this sentence.

Line 78: "leading to the uterine wall"—doesn't make sense. If you are in the fistulous tract, how did you identify the "uterine wall" and what do you mean by "wall"? I'm assuming you cannot see the serosal changes of the uterus? The wall—is that the myometrium? How did you know you were there until the methylene was injected?

We have clarified the sentence (line 81).

- Line 83—to clarify, she had a 3rd CT after cysto to confirm a fistula that you noted above?

Thank you for this question. Indeed, after the cystoscopy that was performed, we requested a CT cystogram in order to assess the contrast passage into the uterus. This is the exam that enabled the identification of contrast inside the colon.

Line 90—"bulk of fibrous tissue reminiscent of chronic inflammation"—awkward wording. This has been corrected (line 109).

Line 91—what do you mean "subtotal hysterectomy"—did you intentionally leave myometrium behind? You mention the cervix on the path report. This is not standard language for hysterectomy.

We left cervix behind as we could not dissect the cervix completely due to pelvic adhesions, only the upper part of the cervix was removed and the lower part was left in situ. This has been adjusted (line 110-111).

Line 91—fourth part of the duodenum - most commonly referred to as ascending. Corrected

Line 98—was this a repeat biopsy of the bladder of the biopsy from the cysto?

The bladder biopsy from cystoscopy and the excised portion of the bladder fistula during the procedure were both negative. We have corrected the wording.

Line 103—so any particular management of the vaginal cuff since path in the cervix was digested food matter?

The food matted found in the cervix was coming from the uteroduodenal fistula, which we were confident that had been repaired. Given that we were confident that we had identified all the fistulas intraoperatively, we opted for primary closure of the vaginal cuff and it healed normally.

Discussion:

- **What exactly do you mean in line 108-109—you are saying that a degenerating calcified fibroid is sloughing calcified material through the fistula into the bladder? How large was the fistula (no measurements given)? You don't typically have**

sloughing calcifications from fibroids. Was this fibroid serosal/pedunculated?

Thank you for this comment. The fibroids that were identified were subserosal and intramural and some of them were calcified, as attested by imaging. Post-embolization necrosis can cause calcification of fibroids. We mean that these necrotic calcifications can be present in post UAE fibroids. We believe, based on the findings of our cystoscopy, that the patient had a bleeding calcified fibroid just at the level of the posterior bladder wall/dome and that this fibroid eventually eroded through the bladder mucosa and shed calcifications into the bladder. The bladder fistula size is estimated to be 1-1.5 cm. The duodenal fistula is estimated to be 1 cm.

Line 113—you have report/reported 2x. Corrected

Line 117—sub or asymptomtic? Again, you suggest that she was completely normal/asymptomatic until 10 years out with new onset hematuria

In our introduction, we mentioned that this patient was awaiting elective hysterectomy as in the last year she had pelvic pain. However, the gross hematuria was the acute event that triggered all the investigations that allowed the diagnosis of the vesicouterine and the suspected uterine-enteric fistula. We have clarified the text in the introduction in order to make this more coherent.

Figure 1—move the black arrow to point at the lesion. This change has been done.

Figure 3—the CT demonstrates a fistula—was this questioned? Or was there concern for perforation? Why wasn't general surgery notified in advance and brought in as a intraop consult? Would also consider changing from thin/thick white/black arrows to maybe different shapes?

This is a very good comment, thank you. The CT findings were discussed with the radiologist, who could not believe that another scan could help identify the exact location

of the fistula. Thus, a colonoscopy was performed, but due to challenges in entering the patients descending colon, it was deemed incomplete. Thus, the gynecology team contacted the general surgery team in advance, and the intra-operative consultation was planned in order to have the general surgery team completely evaluate all of the bowel. Therefore, we have made clarifications in the text to illustrate this nuance. For the figure changes, unfortunately, the image could not be reformatted.

Questions

- What about PMH for the patient? any radiation or prior surgical history? did she truly have no urine/foul smelling discharge x 10 years? what was the inciting event for the hematuria then?

The patient did not have any past medical history, no radiation and no other surgical history. She did not report passage of food matter per vagina nor any symptoms other than increasing pelvic pain, which led to her gynecologist to counsel her for an elective hysterectomy. One hypothesis is that the hematuria event could have been caused by the passage of calcifications sloughed off from a necrotic fibroid through the fistulous tract which triggered the bladder hematuria. We also believe that the UAE may have caused an inflammatory reaction and "pulled" down the duodenum with the uterus as it was shrinking after the embolization and that the fistula formed chronically. Another theory for the formation of bladder stones, is that the food matter may have eventually reached the bladder where it formed calcifications, but then, the patient would have reported foul smelling urine.

3 CT scans in short duration-- was this needed? What did you learn and how would you recommend eval in the future

This is a very important point of discussion, and also why we elected against any further imaging in order to delineate the fistula anatomy pre-operatively, as the patient was going to undergo a midline laparotomy regardless.

The first CT scan that the patient underwent was at the time when she presented to the emergency room with the sole complaint of gross hematuria. This was a non-contrast CT scan, mostly assessing for urolithiasis. The second CT scan that the patient underwent was also performed in the Emergency Room, who was very concerned about the gross hematuria. As counselled by urology, in order to fully assess the ureteral drainage in the context of the bulky fibroids and in order to complete investigation for gross hematuria, the decision was to perform a CT urogram. It is only after this CT scan that the diagnosis of a fistula became more evident for the urology team who decided to perform cystoscopy, as they had noted that one bladder stone had disappeared compared to the previous CT scan. The 3rd CT the patient underwent was a CT pelvis (cystogram only) after the fistula had been identified in cystoscopy, in order to better documents its path. It is very difficult to make recommendations for future imaging recommendations in similar cases. As always, one should try to limit the tests and radiation to which we expose patients. It is known that fistulas are not always well assessed by imaging, and our case demonstrates that uterine fistulas can present in delayed fashion and in surprising enteric locations. Thus, we believe that the take-home message should be more to maintain high clinical suspicion.