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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)*

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

Date: Oct 29, 2020

To: "Mario M. Leitao"

From: "The Green Journal" em@greenjournal.org

Subject: Your Submission ONG-20-2674

RE: Manuscript Number ONG-20-2674

Prophylactic negative-pressure wound therapy after laparotomy for malignant and benign gynecologic surgery: a randomized clinical trial

Dear Dr. Leitao:

Your manuscript has been reviewed by the Editorial Board and by special expert referees. Although it is judged not acceptable for publication in Obstetrics & Gynecology in its present form, we would be willing to give further consideration to a revised version.

If you wish to consider revising your manuscript, you will first need to study carefully the enclosed reports submitted by the referees and editors. Each point raised requires a response, by either revising your manuscript or making a clear and convincing argument as to why no revision is needed. To facilitate our review, we prefer that the cover letter include the comments made by the reviewers and the editor followed by your response. The revised manuscript should indicate the position of all changes made. We suggest that you use the "track changes" feature in your word processing software to do so (rather than strikethrough or underline formatting).

Your paper will be maintained in active status for 14 days from the date of this letter. If we have not heard from you by Nov 12, 2020, we will assume you wish to withdraw the manuscript from further consideration.

REVIEWER COMMENTS:

Reviewer #1: I think this question has been asked and answered in many prior studies, as was acknowledged in the discussion of this paper. It is interesting to me that the study in this setting was not then explicitly looking at higher BMI or patients in other studies that have been shown to perhaps have benefit or at a minimum be at a higher risk of complications. Additionally, I would look primarily at the superficial complications, as there isn't a basis for these bandages improving possible organ related complications. I think the negative results of the study are not that remarkable, and in the setting of other negative studies I don't know how much this adds to the literature, except to say that gyn onc populations are similar to others and add more evidence to the theory that NPWT dressings do not affect complication rates.

Line-Item thoughts:

Line 56 - why was staple skin closure required? These dressings can be placed over staples or sutures, unless this particular type of dressing requires staples?

Line 63 - The rate of diabetes was higher in the NPWT group, and yet the complications remained similar. Although this variable was controlled for, could there be an underlying advantage of the NPWT dressing that allowed for the group with higher diabetes rates to end up without higher complications?

Line 157- All sites had already adopted SSI reduction bundles, presumably they were all slightly different. Some studies have looked at bundles and the reduction benefit of different parts of them. Was there comparison of the bundles to assess baseline differences in the sites?

Line 162- Subcutaneous drains have been shown to not decrease complication rates. Allowing for a drain to be in place with the NPWT dressing may have allowed for confounder to etiology for complication. Do you have the number of patients who had drains placed? Were they equal between groups?

Line 165- Regarding the removal of the dressing—is there evidence to suggest that the benefit of the NPWT dressing is in the number of days it is in place? Theoretically this would make sense. Perhaps addressing the number of days a patient was admitted in the table would be important, as if someone discharged on POD#2 or 3, this would be different than POD#7 or more (both from a dressing and a wound complication standpoint).

Line 180- Good assessment of power and then explanation of early termination due to futility.

Line 223: Are there data that suggest surgeries with bowel resections have higher possibility of complications? If so, does including them change results? Good inclusion in Table 1 demonstrating equal bowel resections in both groups.

Line 274- This line is confusing -- whose bundle are you discussing -- MDA vs MSK?

Line 297- Appropriate notation that only 32 morbidly obese people were enrolled. This likely affected the results.

Table 2: / Line 195: What is the MSK Secondary Surgical Events System? Perhaps put this in a figure or table?

Table 4: When was the wound pain assessed? Or is this the average VAS pain level throughout their stay? Does this add much to your study or perhaps is it worth removing?

Table 5: Would also include discharge day/hospitalization duration and drain placement.

Overall assessment:

I think this negative study is in line with other published results. I think this study would have more significance if it looked at particularly high-risk patients (elevated BMI, advanced diabetes, vascular disorders) and at outcomes related just to superficial infections. I think this is a publishable study but I don't know that it adds much to current literature, except that it is one of few in the OB/GYN literature.

Reviewer #2:

Precis - negative pressure wound therapy (NPWT) did not lead to a decrease in wound complication rate in patients undergoin laparotomy for gyn malignancy or in morbidly obese patients with benign gyn surgeries but did lead to an increase in skin blistering

Abstract - Objective - to assess efficacy of NPWT at any weight with malignancy and morbidly obese with benign surgery

Methods - any weight with malignancy - 1:1 - gauze versus NPWT

BMI >/= 40 kg/m2 and benign surgery also eligible; vertical, midline incision, staples for closure, randomized and stratified by BMI after skin closure; wound complications within 30 days

Results - 505 patients - 254 NPWT; 251 - gauze, 98% malignancy; diabetes and EBL were increased in NPWT group wound complications NPWT - 17.3%; gauze - 16.3%

no difference after controlling for diabetes and EBL; skin blistering in 13% of NPWT and 1.2% of gauze; increased BMI leads to increase in wound complications

Conclusion - NPWT did not decrease wound complications but did increase skin blistering

Intro - surgical site infection (SSI) 27-33% in obese, NPWT has limited evidence but increased cost - primary objective - does NPWT decrease wound complications

Methods - 4 centers - 3/16-8/19 - gyn malign or benign surgery with BMI >/= 40 kg/m2; randomized after skin closure

preoperative antibiotics and ERAS protocols, no subcuticular closures, staples for skin

primary outcome - wound complications in 30 d; secondary outcome - type of wound complications; tertiary outcome - skin blistering

terminated study early since no difference

Results - wound complic - 17% in NPWT, 16% in gauze, no difference in number or severity between arms, nonsignificant difference after adjusting for EBL and diabetes

no difference in obesity; skin blistering - 13% NPWT and 1.2% gauze

wound complications related to BMI

Disc - SSI reduction bundle effective in decreasing SSI

RCT does not support routine NPWT for malignancy or obesity, only increased BMI is associated with increased infection

cost does not merit use for prophylaxis and it causes increased skin blistering

Comments -

- 1. This is a well done randomized trial of an important topic.
- 2. Use of Prevena was embraced without good data. It is important to show that there is no benefit to its use, but it comes with an increased cost and increased complication of skin blistering.
- 3. Well done evaluation of a good clinical question. Obesity alone is the key!

Reviewer #3: Thank you for the opportunity to review this excellent prospective randomized trial "Prophylactic negative-pressure wound therapy after laparotomy for malignant and benign gynecologic surgery: a randomized clinical trial

This is a well designed, multicenter randomized trial of negative pressure wound dressing for the prevention of superficial and deep surgical site infections. SSI remains a significant perioperative morbidity. Negative pressure devices have been promulgated as a expensive but overall effective method for prevention.

I am reminded of the Institute of medicine's goal of effective care for the improvement of healthcare overall. This trial is an excellent example of how a trial with negative results can actually improve health care. As the authors clearly point out, there are several studies in obstetrics and others of surgery where prophylactic use of negative pressure devices has not been shown to significantly improve SSI. This study adds to that body of literature and will hopefully decrease the unnecessary use of a rather expensive intervention.

In addition to a good trial design, the papers well written. I am confident will be cited in the future and be useful in changing management.

STATISTICAL EDITOR COMMENTS:

The Statistical Editor makes the following points that need to be addressed:

Table 1: The groups were randomly allocated, so any statistical difference is thought to be due to random chance. There appear to be > 25 individual variables compared in this Table, so to have 2 statistically different at p < .05 threshold is not unexpected. Also, although DM could have been prospectively balanced in the two groups, to have chosen blocks by EBL seems to be a post-op variable that might reasonably be associated with overall wound complications. In any event, no need to statistically compare the baseline characteristics.

- Table 2: Need to clearly separate the primary outcome from the rest, they are all secondary outcomes and not something factored into the original sample size/power calculation.
- Table 3: Since CIs are included, the column of P values is redundant and should be omitted.
- Table 5: Should round the CIs for pre-op Hb to nearest 0.1 g/dL, not to 0.01g/dL precision. should enumerate all missing data.

Abstract should conform to our RCT template.

EDITORIAL OFFICE COMMENTS:

- 1. The Editors of Obstetrics & Gynecology are seeking to increase transparency around its peer-review process, in line with efforts to do so in international biomedical peer review publishing. If your article is accepted, we will be posting this revision letter as supplemental digital content to the published article online. Additionally, unless you choose to opt out, we will also be including your point-by-point response to the revision letter. If you opt out of including your response, only the revision letter will be posted. Please reply to this letter with one of two responses:
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manuscript, you will be prompted in Editorial Manager (EM) to click on "Revise Submission." Doing so will launch the resubmission process, and you will be walked through the various questions that comprise the eCTA. Each of your coauthors will receive an email from the system requesting that they review and electronically sign the eCTA.

Please check with your coauthors to confirm that the disclosures listed in their eCTA forms are correctly disclosed on the manuscript's title page.

- 3. Clinical trials submitted to the journal as of July 1, 2018, must include a data sharing statement. The statement should indicate 1) whether individual deidentified participant data (including data dictionaries) will be shared; 2) what data in particular will be shared; 3) whether additional, related documents will be available (eg, study protocol, statistical analysis plan, etc.); 4) when the data will become available and for how long; and 5) by what access criteria data will be shared (including with whom, for what types of analyses, and by what mechanism). Responses to the five bullet points should be provided in a box at the end of the article (after the References section).
- 4. Obstetrics & Gynecology follows the Good Publication Practice (GPP3)* guideline for manuscripts that report results that are supported or sponsored by pharmaceutical, medical device, diagnostics and biotechnology companies. The GPP3 is designed to help individuals and organization maintain ethical and transparent publication practices.
- (1) Adherence to the GPP3 guideline should be noted in the cover letter.
- (2) For publication purposes, the portions of particular importance to industry-sponsored research are below. In your cover letter, please indicate whether the following statements are true or false, and provide an explanation if necessary: (2a) All authors had access to relevant aggregated study data and other information (for example, the study protocol) required to understand and report research findings.
- (2b) All authors take responsibility for the way in which research findings are presented and published, were fully involved at all stages of publication and presentation development and are willing to take public responsibility for all aspects of the work.
- (2c) The author list accurately reflects all substantial intellectual contributions to the research, data analyses, and publication or presentation development. Relevant contributions from persons who did not qualify as authors are disclosed in the acknowledgments.
- (2d) The role of the sponsor in the design, execution, analysis, reporting, and funding (if applicable) of the research has been fully disclosed in all publications and presentations of the findings. Any involvement by persons or organizations with an interest (financial or nonfinancial) in the findings has also been disclosed.
- (2e) All authors have disclosed any relationships or potential competing interests relating to the research and its publication or presentation.
- (3) The abstract should contain an additional heading, "Funding Source," and should provide an abbreviated listing of the funder(s).
- (4) In the manuscript, a new heading—"Role of the Funding Source"—should be inserted before the Methods and contain a detailed description of the sponsor's role as well as the following language:

"The authors had access to relevant aggregated study data and other information (such as study protocol, analytic plan and report, validated data table, and clinical study report) required to understand and report research findings. The authors take responsibility for the presentation and publication of the research findings, have been fully involved at all stages of publication and presentation development, and are willing to take public responsibility for all aspects of the work. All individuals included as authors and contributors who made substantial intellectual contributions to the research, data analysis, and publication or presentation development are listed appropriately. The role of the sponsor in the design, execution, analysis, reporting, and funding is fully disclosed. The authors' personal interests, financial or non-financial, relating to this research and its publication have been disclosed." Authors should only include the above statement if all of it is true, and they should attest to this in the cover letter (see #2, above).

- *From Battisti WP, Wager E, Baltzer L, Bridges D, Cairns A, Carswell CI, et al. Good publication practice for communicating company-sponsored medical research: GPP3. Ann Intern Med 2015;163:461-4.
- 5. 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.
- 6. Because of space limitations, it is important that your revised manuscript adhere to the following length restrictions by manuscript type: Original Research reports should not exceed 22 typed, double-spaced pages (5,500 words). Stated page limits include all numbered pages in a manuscript (i.e., title page, précis, abstract, text, references, tables, boxes, figure legends, and print appendixes) but exclude references.

- 7. Specific rules govern the use of acknowledgments in the journal. Please note the following guidelines:
- * All financial support of the study must be acknowledged.
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- * 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).
- 8. Provide a short title of no more than 45 characters, including spaces, for use as a running foot.
- 9. The most common deficiency in revised manuscripts involves the abstract. Be 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 paper. Make sure that the abstract does not contain information that does not appear in the body text. If you submit a revision, please check the abstract carefully.

In addition, the abstract length should follow journal guidelines. The word limit for Original Research articles is 300 words; Reviews is 300 words. Please provide a word count.

- 10. Abstracts for all randomized, controlled trials should be structured according to the journal's standard format. The Methods section should include the primary outcome and sample size justification. The Results section should begin with the dates of enrollment to the study, a description of demographics, and the primary outcome analysis. Please review the sample abstract that is located online here: http://edmgr.ovid.com/ong/accounts/sampleabstract_RCT.pdf. Please edit your abstract as needed.
- 11. 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.
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- 14. ACOG is moving toward discontinuing the use of "provider." Please replace "provider" throughout your paper with either a specific term that defines the group to which are referring (for example, "physicians," "nurses," etc.), or use "health care professional" if a specific term is not applicable.
- 15. In your Abstract, manuscript Results sections, and tables, the preferred citation should be in terms of an effect size, such as odds ratio or relative risk or the mean difference of a variable between two groups, expressed with appropriate confidence intervals. When such syntax is used, the P value has only secondary importance and often can be omitted or noted as footnotes in a Table format. Putting the results in the form of an effect size makes the result of the statistical test more clinically relevant and gives better context than citing P values alone.

If appropriate, please include number needed to treat for benefits (NNTb) or harm (NNTh). When comparing two procedures, please express the outcome of the comparison in U.S. dollar amounts.

Please standardize the presentation of your data throughout the manuscript submission. For P values, do not exceed three decimal places (for example, "P = .001"). For percentages, do not exceed one decimal place (for example, 11.1%").

- 16. Please review the journal's Table Checklist to make sure that your tables conform to journal style. The Table Checklist is available online here: http://edmgr.ovid.com/ong/accounts/table_checklist.pdf.
- 17. Please review examples of our current reference style at http://ong.editorialmanager.com (click on the Home button in the Menu bar and then "Reference Formatting Instructions" document under "Files and Resources). 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 reference list.

In addition, the American College of Obstetricians and Gynecologists' (ACOG) documents are frequently updated. These documents may be withdrawn and replaced with newer, revised versions. If you cite ACOG documents in your manuscript,

be sure the reference you are citing is still current and available. If the reference you are citing has been updated (ie, replaced by a newer version), please ensure that the new version supports whatever statement you are making in your manuscript and then update your reference list accordingly (exceptions could include manuscripts that address items of historical interest). If the reference you are citing has been withdrawn with no clear replacement, please contact the editorial office for assistance (obgyn@greenjournal.org). In most cases, if an ACOG document has been withdrawn, it should not be referenced in your manuscript (exceptions could include manuscripts that address items of historical interest). All ACOG documents (eg, Committee Opinions and Practice Bulletins) may be found at the Clinical Guidance page at https://www.acog.org/clinical (click on "Clinical Guidance" at the top).

18. Figure 1: Please add some text to the box "1,391."

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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 in a word processing format such as Microsoft Word. Your revision's cover letter should include the following:

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- * A point-by-point response to each of the received comments in this letter. Do not omit your responses to the Editorial Office or Editors' comments.

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

Again, your paper will be maintained in active status for 14 days from the date of this letter. If we have not heard from you by Nov 12, 2020, we will assume you wish to withdraw the manuscript from further consideration.

Sincerely,

Dwight J. Rouse, MD, MSPH

2019 IMPACT FACTOR: 5.524

2019 IMPACT FACTOR RANKING: 6th out of 82 ob/gyn journals

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6 11/9/2020, 1:44 PM

Dwight J. Rouse, MD, MSPH, MD Obstetrics and Gynecology

Dear Dr. Rouse,

Thank you for reviewing our manuscript ONG-20-2674 entitled "Prophylactic negative-pressure wound therapy after laparotomy for malignant and benign gynecologic surgery: a randomized clinical trial" for publication in *Obstetrics & Gynecology*. We have carefully read the reviewers' and editors' comments and outlined below are our responses to and where they can be located in the revised manuscript. We hope that we have adequately addressed all comments and that they are acceptable to you.

REVIEWER #1

Reviewer Comment/Question #1: I think this question has been asked and answered in many prior studies, as was acknowledged in the discussion of this paper. It is interesting to me that the study in this setting was not then explicitly looking at higher BMI or patients in other studies that have been shown to perhaps have benefit or at a minimum be at a higher risk of complications. Additionally, I would look primarily at the superficial complications, as there isn't a basis for these bandages improving possible organ related complications. I think the negative results of the study are not that remarkable, and in the setting of other negative studies I don't know how much this adds to the literature, except to say that gyn one populations are similar to others and add more evidence to the theory that NPWT dressings do not affect complication rates.

<u>Author Response 1:</u> We thank the reviewer for their comment. It is important to note that when we developed our RCT over 5 years ago, there were few RCTs in this area, and the ones we now reference have been recently published. Reviewers 2 and 3 seem to feel differently about the value of this RCT. In terms of only looking at superficial complications, we clearly describe in the methods that our primary endpoint was a composite of wound infection, wound separation, wound seroma, or wound hematoma. All of these are superficial complications, as the reviewer suggests we should have done. We hope our response is acceptable to you.

<u>Reviewer Comment/Question #2:</u> Line 56 - why was staple skin closure required? These dressings can be placed over staples or sutures, unless this particular type of dressing requires staples?

<u>Author Response 2</u>: There is debate about the impact on SSI in terms of stapled or subcuticular skin closure. We made a decision to require a standard skin closure with staples when developing this RCT to avoid any additional concerns over method of skin closure. We agree that this device could be placed over either staples or sutures. This seems to be a minor point with little to no impact on our results, as best as we can tell, and we cannot change this at this point. It does not seem that a revision to the manuscript is needed.

<u>Reviewer Comment/Question #3</u>: Line 63 - The rate of diabetes was higher in the NPWT group, and yet the complications remained similar. Although this variable was controlled for, could there be an underlying advantage of the NPWT dressing that allowed for the group with higher diabetes rates to end up without higher complications?

<u>Author Response 3</u>: As the reviewer noted, additional multivariate logistic regression analyses were performed to account for this, and there was still no impact on the primary endpoint. We are not certain what else is required for this. This comment is also somewhat in contrast to the Statistical Editor's comment #1, which states that there is no need to compare the baseline characteristics, as this is an RCT. We also do not know how to address this question and any thoughts we may have would be purely theoretical.

Reviewer Comment/Question #4: Line 157- All sites had already adopted SSI reduction bundles, presumably they were all slightly different. Some studies have looked at bundles and the reduction benefit of different parts of them. Was there comparison of the bundles to assess baseline differences in the sites?

<u>Author Response 4:</u> No, we did not compare bundles from each site. With the randomization process, we believe this would have little impact on the primary endpoint of our study.

<u>Reviewer Comment/Question #5</u>: Line 162- Subcutaneous drains have been shown to not decrease complication rates. Allowing for a drain to be in place with the NPWT dressing may have allowed for confounder to etiology for complication. Do you have the number of patients who had drains placed? Were they equal between groups?

<u>Author Response 5:</u> We do not have this information, as we also agree that SC drains have not been shown to impact complication rates, and therefore, we did not specifically collect this data point but allowed them to be used as per surgeon discretion. Confounders are eliminated by the randomization process.

Reviewer Comment/Question #6: Line 165- Regarding the removal of the dressing—is there evidence to suggest that the benefit of the NPWT dressing is in the number of days it is in place? Theoretically this would make sense. Perhaps addressing the number of days a patient was admitted in the table would be important, as if someone discharged on POD#2 or 3, this would be different than POD#7 or more (both from a dressing and a wound complication standpoint).

Author Response 6: We are not aware of any data that address the rate of complications and the number of days that a dressing or the NPWT is left on. The other published RCTs also do not address this. We chose the method of application for the NPWT system, as per the manufacturer's recommendation. We have now provided the LOS data for each cohort in Table 1, as suggested, and the median LOS (5 days for each) was the same in both cohorts (P=0.22). We also added the following text to the end of the second paragraph of the Results section: "The median length of stay was 5 days in both arms (P=0.22)." We also added the following text at the end of the 3rd paragraph of the Results section: "In the NPWT arm only, the median LOS was 5 days (range, 3-43 days) in those who developed a wound complication compared to 6 days (range, 2-26) in those who did not (P=0.95)." All patients had the NPWT removed no later than POD 7, as we stated in the Methods section.

<u>Reviewer Comment/Question #7:</u> Line 180- Good assessment of power and then explanation of early termination due to futility.

Author Response 7: Thank you.

<u>Reviewer Comment/Question #8:</u> Line 223: Are there data that suggest surgeries with bowel resections have higher possibility of complications? If so, does including them change results? Good inclusion in Table 1 demonstrating equal bowel resections in both groups.

<u>Author Response 8:</u> This depends on whether isolated bowel resections for colon cancer or those that are performed during ovarian cancer debulkings. Yes, all complications increase with bowel resections in ovarian cancer debulkings. Again, with the randomization, as the reviewer noted, there were equal numbers in both arms. Therefore, this was not a confounder. We believe a revision may not be needed here.

<u>Reviewer Comment/Question #9:</u> Line 274- This line is confusing-- whose bundle are you discussing --MDA vs MSK?

<u>Author Response 9:</u> We apologize for the confusion. We have the reference attached to this statement as with the ones prior referencing MDACC data. We have added "...at MD Anderson Cancer Center.." to clarify.

<u>Reviewer Comment/Question #10:</u> Line 297- Appropriate notation that only 32 morbidly obese people were enrolled. This likely affected the results.

<u>Author Response 10:</u> We thank the reviewer for this comment.

<u>Reviewer Comment/Question #11:</u> Table 2: / Line 195: What is the MSK Secondary Surgical Events System? Perhaps put this in a figure or table?

<u>Author Response 11:</u> We affixed the reference (#18) into the footnote in Table 2. The MSK SSE System is validated and published for all to see details. Reference 18 has detailed information on this system. We also added the following text to the methods section: "In brief, the MSK SSE system grading is as follows: grade 1 requires only bedside care or oral medications; grade 2 requires intravenous medications or transfusion; grade 3 requires radiologic, endoscopic, or operative interventions; grade 4 leads to chronic disability or organ resection; and grade 5 is death.¹⁸"

<u>Reviewer Comment/Question #12:</u> Table 4: When was the wound pain assessed? Or is this the average VAS pain level throughout their stay? Does this add much to your study or perhaps is it worth removing?

<u>Author Response 12:</u> Wound pain was ascertained with either the inpatient or outpatient assessment form. We added this information to the footnote of Table 4.

<u>Reviewer Comment/Question #13:</u> Table 5: Would also include discharge day/hospitalization duration and drain placement.

<u>Author Response 13:</u> Please see our response to comment #6. We included LOS information in Table 1 and also within the Results section. There does not seem to be an effect of LOS. We do not have information on drain placement (see response to comment #5). Thank you.

Reviewer Comment/Question #14: Overall assessment:

I think this negative study is in line with other published results. I think this study would have more significance if it looked at particularly high-risk patients (elevated BMI, advanced diabetes, vascular disorders) and at outcomes related just to superficial infections. I think this is a publishable study but I don't know that it adds much to current literature, except that it is one of few in the OB/GYN literature.

<u>Author Response 14:</u> We were disappointed in our negative findings, as we believed the NPWT may have an impact on wound complications. However, a negative study also is important as we decide which interventions are beneficial, especially when costs and wastes are an issue (see Comments by Reviewers 2 and 3). We do feel this adds more information to the literature. The mentioned other RCTs were not yet complete or published when we designed this trial. Also, women undergoing surgery for gynecologic cancer, and especially ovarian cancer debulking, are very high risk and are different from the other cohorts reported in the other RCTs as they often are more malnourished, have lower albumin, and undergo multiorgan resections.

REVIEWER #2

Reviewer Comment/Question #1: This is a well done randomized trial of an important topic.

<u>Author Response 1:</u> We thank the reviewer for the kind assessment.

Reviewer Comment/Question #2: Use of Prevena was embraced without good data. It is important to show that there is no benefit to its use, but it comes with an increased cost and increased complication of skin blistering.

Author Response 2: We thank the reviewer for the comment and agree with the assessment.

<u>Reviewer Comment/Question #3:</u> Well done evaluation of a good clinical question. Obesity alone is the key!

<u>Author Response 3:</u> We thank the reviewer.

REVIEWER #3:

Reviewer Comment/Question: Thank you for the opportunity to review this excellent prospective randomized trial "Prophylactic negative-pressure wound therapy after laparotomy for malignant and benign gynecologic surgery: a randomized clinical trial

This is a well designed, multicenter randomized trial of negative pressure wound dressing for the prevention of superficial and deep surgical site infections. SSI remains a significant perioperative morbidity. Negative pressure devices have been promulgated as a expensive but overall effective method for prevention.

I am reminded of the Institute of medicine's goal of effective care for the improvement of healthcare overall. This trial is an excellent example of how a trial with negative results can actually improve health care. As the authors clearly point out, there are several studies in obstetrics and others of surgery where prophylactic use of negative pressure devices has not been shown to significantly improve SSI. This study adds to that body of literature and will hopefully decrease the unnecessary use of a rather expensive intervention.

In addition to a good trial design, the papers well written. I am confident will be cited in the future and be useful in changing management.

<u>Author Response:</u> We sincerely thank the reviewer for these comments. There are no revisions required based on these comments.

STATISICAL EDITOR COMMENTS

Comment/Question #1: Table 1: The groups were randomly allocated, so any statistical difference is thought to be due to random chance. There appear to be > 25 individual variables compared in this Table, so to have 2 statistically different at p < .05 threshold is not unexpected. Also, although DM could have been prospectively balanced in the two groups, to have chosen blocks by EBL seems to be a post-op variable that might reasonably be associated with overall wound complications. In any event, no need to statistically compare the baseline characteristics.

<u>Author Response 1:</u> We appreciate this comment and agree completely. Unfortunately most clinicians are aware of this and would expect to see some statement of analysis of baseline characteristics. We agree with the editor and that is why we did not include individual p values. However, as evidenced by comments from Reviewer 1, clinicians will inquire and then criticize that there is an imbalance and therefore confounding. We hope it is acceptable to keep the Table as it is, as we did not list p values.

<u>Comment/Question #2:</u> Table 2: Need to clearly separate the primary outcome from the rest, they are all secondary outcomes and not something factored into the original sample size/power calculation.

<u>Author Response 2</u>: We agree with editor's observation. With limits on tables and figures we decided to depict these data here, as they are clinically of interest. We have changed the heading of the table to the following: "Table 2. Wound complication rates (primary endpoint) and number/grade of complication subtypes (secondary endpoints)". We hope this is acceptable.

<u>Comment/Question #3:</u> Table 3: Since CIs are included, the column of P values is redundant and should be omitted.

Author Response 3: We thank the editor for this comment. We deleted the column with p values.

<u>Comment/Question #4:</u> Table 5: Should round the CIs for pre-op Hb to nearest 0.1 g/dL, not to 0.01g/dL precision. should enumerate all missing data.

<u>Author Response 4:</u> We have rounded CIs for pre-op Hb and also enumerated all missing data within the revised table.

Reviewer Comment/Question #5: Abstract should conform to our RCT template.

<u>Author Response 5:</u> We have modified per the author guidelines.

Thank you again for considering our manuscript for publication in *Obstetrics & Gynecology*.

Sincerely,

Mario M. Leitao Jr., MD