OPEN PEER REVIEW

Open Peer Review (OPR)

As a new feature for progressing towards transparency, we decided to open a new window for all of our editors as well as authors titled "**Open Peer Review**". We hope by this new facility, our reviewers will be more motivated and authors will be more satisfied with the review process. We believe that publishing our peer review reports could make a transparent and clear environment for all our efforts within a journal, but not all reviewers tend to publish their comments.

What is "Open Peer Review" process?

An "Open Peer Review" process is making the details of all review process (including reviewers, associate editors, and EICs comments) as "Public" as it is agreed by EIC, Authors, and reviewers.

Advantages of "Open Peer Review" process

- More transparency, constructiveness and tactful comments of the peer review process: leads to an increase in the quality of reviews
- More motivations for all involved roles in the review process
- Authors' satisfactions from the review process: Increases honesty between authors and reviewers
- Education of both authors and new students
- Prevents reviewers from following their individual agendas and leading to the detection of reviewers' conflicts of interests

You can find out more at:
https://sites.kowsarpub.com/kowsar/knowledgebase/category/tree.html#opr.html

Anesthesiology and Pain Medicine
Article DOI: 10.5812/aapm.105138
Published in: Anesthesiology and Pain Medicine: 10(4); e105138

Peer Review Report for "The Relation Between Common Carotid Artery Diameter and Central Venous Pressure for Assessment of Intravascular Fluid Status after Major Surgeries; an Observational Study"

Author(s): Samaa A Kasem, Ashraf Abd Elmawgood Bassiouny, Ahmed A Badawy, Ahmed Rabea Mohammed

Review Timeline:

Submit Date:	17 May 2020
Revised Date:	9 Jun 2020
Accepted Date:	14 Jun 2020

Revision (0)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | Revision (0) 25 May 2020

Dear AE,
- It is mentioned that this study is an observational study, while in this study, intervention therapy has been performed with fluid therapy and it is a clinical trial study
- The article is the clinical trial, You must draw a study flow diagram and follow CONSORT statement rules.
- In the inclusion and exclusion criteria, considering the importance of cardiac function in this study, systolic and diastolic dysfunction should be mentioned as exclude criteria.
-In the method, the appropriate location of the CV line should be indicated using a chest x-ray to measure CVP
- The performance of US and CCA diameter measurement depends on the operator, the operator's experience in performing this measurement should be noted.
- In the method refers to the type of serum used for fluid therapy
- Be corrected the grammar of this text.
Thanks.

REFEREE: Associate Editor | **Revision** (0) 31 May 2020

Dear EIC,
After reading of this manuscript and the according to reviewer's comment, this manuscript has need to minor revision.
Kind regards,

REFEREE: Reviewer | **Revision** (0) 31 May 2020

Dear AE,
This study needs some corrections:
1. Keywords must be written in mesh format.
2. In Background & Objectives: Explain the benefits of CVP monitoring and joint carotid artery and the common carotid artery diameter (CCA)) for liquid therapy compared to other methods.
3. In Background & Objectives: After the initial explanation about CVP and CCA then it is enough to write the aberration.
4. In Patients and Methods: It seems to be a clinical trial. If mentioned, the study is observational. Explain more about this.
Kind Regards

REFEREE: EIC | **Revision** (0) 31 May 2020

Dear Author,
Your article is reviewed by the reviewers carefully. According to their comments, this document needs minor revision. Please follow their comments as requested.
Thanks.

OPEN PEER REVIEW

Revision (1)

Reply to Reviewers

Ideally, the reviewing process can significantly improve the submitted manuscripts by allowing the authors to take into account the advice of reviewers. Author(s) must reply to all reviewers' comments in a separate Word file, point by point. A "**Reply to Reviewers**" document is submitted along with revised manuscript during submission of revised files, summarizing the changes that the authors made in response to the reviewers' comments. The responses to reviewers' comments specifies how the authors addressed each comment the reviewers made.

You can read the authors' responses to the reviewers' comments in the next page.

Reply to the reviewers comments

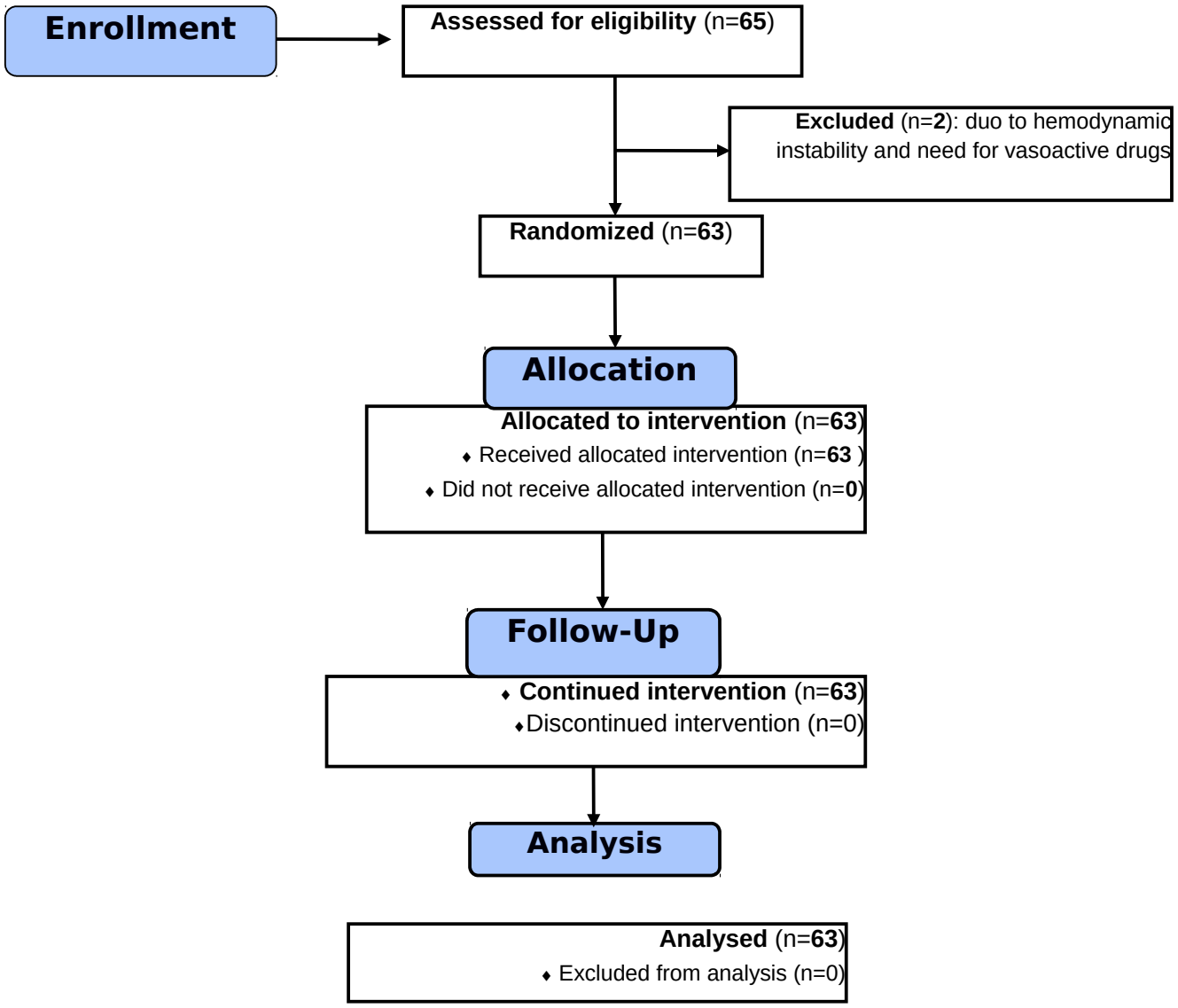
Reviewer 1:
- It is mentioned that this study is an observational study, while in this study, intervention therapy has been performed with fluid therapy and it is a clinical trial study

-it is an observational clinical trial

But we can not change the title because it was registered at the clinical trial.https://clinicaltrials.gov/ct2/show/NCT04018443

- The article is clinical trial, You must draw study flow-diagram and follow CONSORT statement rules.

Flow Diagram



- In the inclusion and exclusion criteria, considering the importance of cardiac function in this study, systolic and diastolic dysfunction should be mentioned as exclude criteria.

-Added

-In the method, the appropriate location of the CV line should be indicated using chest x-ray to measure CVP

65 patients of both sex (age 20-60 years), American Society of Anesthesiology *(ASA)* physical status II and III who were able to breathe spontaneously and lie supine and had CVP catheter *(subclavian or internal jugular vein)* ; (the CVP catheter was inserted guided by ultrasound , chest x ray was done to confirm the position of the CVP catheter and to exclude any complications)

- The performance of US and CCA diameter measurement depends on the operator, the operator's experience in performing this measurement should be noted.

The CCA diameter:

The CCA was visualized with the ultrasound transducer 12 MHz linear probe using a short-axis view perpendicular to the skin in a transverse plane on the patient's neck lateral to the cricoid cartilage on the contralateral side of the central venous line insertion. While the patient was in a supine position with the head of the bed 30° elevated. The diastolic antro-posterior diameter of the CCA was measured in millimeters *(mm)* from intimal to intimal edge using the frozen B-Mode image at the end of expiration. The position of the transducer was marked on the skin; (each measure was taken three times and the average was recorded; using Philips ultrasound HD5 machine *(Philips Ultrasound, Bothell, WA, USA)*. These measures were done by anesthesia consultant expert in ultrasound-guided central venous cannulation and trained in measuring the diameter of CCA.

- In the method refers to the type of serum used for fluid therapy

1- CVP (cmH_2O):

- baseline reading, before and after infusion of normal saline solution (30 ml/min till reaching 5ml/kg) and sonographic measurement of CCA diameter.

- The percentage increase in the CVP was calculated using the formula: $[(CVP_{post}/CVP_{pre}) \times 100] - 100$

2- Common carotid artery (CCA) diameter measurements:

- Baseline measurement after admission , before *(diam $_{pre}$)* and after *(diam $_{post}$)* infusion of normal saline solution (30 ml/min till reaching 5ml/kg).

- Be corrected the grammar of this text.

-English editing and checking grammar was done

Reviewer 2:
This study needs some corrections:
1. Keywords must be written as mesh format.

Keywords: Common carotid artery, Ultrasound, Central venous pressure.

2. In Background & Objectives: Explain the benefits of CVP monitoring and joint carotid artery and the common carotid artery diameter (CCA)) for liquid therapy compared to other methods.

The CVP measurement is used for the estimation of intravascular volume. However; the insertion of central venous catheters is time- consuming and has complications **(5)**. Therefore non-invasive assessment of the intravascular volume using bedside ultrasound became popular **(6, 7)**. Previous studies tried to find a relation between the changes in the CVP and the extra-thoracic vessels using inferior vena cava (IVC) diameter **(8- 10),** I*VC* collapsibility index **(11)** internal jugular (IJV) or femoral vein collapsibility (12)**,** IJV/CCA ratio (13) but the assessment was difficult in obese and surgical patients and their results were not reliable.

To our knowledge, *Hilbert et al.* **(14)** reported that the diameter of the CCA responds to intravascular volume expansion with significant dilation in fluid demanding patients and they recommended further studies to confirm their results; so this study aimed to find a relation between the diameter CCA ;an easily accessible extra-thoracic artery and the change in the CVP after fluid administration to help in the assessment of the intravascular volume status and to find the cutoff value for the diameter of the CCA that can predict the response to fluid administration.

3. In Background & Objectives: After the initial explanation about CVP and CCA then it is enough to write the aberration.

Adjusted

4. In Patients and Methods: It seems to be a clinical trial. If mentioned, the study is observational. Explain more about this.

-it is an observational clinical trial

But we can not change the title because it was registered at the clinical trial.https://clinicaltrials.gov/ct2/show/NCT04018443

OPEN PEER REVIEW

Revision (1)

Here, you can see the **Reviewers**, **Associate Editors** and **EICs'** comments from the beginning to the end of the revision process.

REFEREE: Reviewer | **Revision** (1) 14 Jun 2020

Dear AE,
I studied this manuscript and the authors' answers to reviewers' requests were complete. Therefore, this manuscript can be accepted for publication after English editing.
Kink regards,

REFEREE: Associate Editor | **Revision** (1) 14 Jun 2020

Dear EIC,
I studied this manuscript and the authors' answers to reviewers' requests were complete. Therefore, this manuscript can be accepted for publication after English editing.
Kink regards,

REFEREE: EIC | **Revision** (1) 14 Jun 2020

Dear Author,
The document is reviewed carefully by the reviewers. According to their comments and your revisions as requested, this manuscript is accepted.
Thanks.