

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Thank you very much for your valuable suggestions on my manuscript. According your suggestions, I carefully reviewed literatures, guidelines and the patients' pregnancy management. Now I response one by one..

1. Although this case was reported as a success story, the prospective management strategies to prevent serious events such as acute heart failure and acute pulmonary embolism was not described at each important phase, especially at 12, 28-29 weeks. Clinically prevention of major events would be most important in pregnancy with cardiovascular disease. What was the management strategy to keep safe pregnancy at the first presentation at 12 week gestation? Heart failure is likely to develop due to volume overload by gestation progress. The hemodynamically catastrophic outcome could be easily predicted even after the successful treatment after 28-29 week. I think should be explained treatment and management between 29-33 weeks in detail .

Response: the manuscript has been added treatment and management between 29-33 weeks in detail in "TREATMENT".

2. How was the ACT control strategy before and during CS operation. When the authors found the progression of thrombus from IVC to tricuspid, what was prepared for? Only anticoagulation?

Response: 1) the ACT control strategy before and during CS operation has been described in "TREATMENT" : Prophylactic anticoagulation was not performed before the CS. During the CS, when we discovered the IVC thrombus, low molecular weight heparin at 140 ml intravenous injection was performed immediately. After hysterectomy, 60 mL and 50 mL LMWH were performed separately. 2) When we found the progression of thrombus from IVC to tricuspid, we urgently organized the multidisciplinary team discussion for rescue plan and informed consent with the patient's family. The details in the "MULTIDISCIPLINARY EXPERT CONSULTATION" and "TREATMENT".

3. I think there was the risk of occlusion of main trunk of PA which causes hemodynamic collapse. The dissolution of thrombus might have been just lucky. Please show the preplanned protocol in this case.

Response: yes, I agree with you that the patient was fortunate to avoid serious adverse events. I think main cause of the development of TPE in CS was the patient's poor pregnancy management. She was lucky for we timely diagnoses and dissolution of the thrombus by total heparinization treatment stopped it from occluding the main pulmonary artery and prevented thrombus enlargement in other areas, such as the left atrial appendage and mitral valve. We also preplanned the rescue protocol if hemodynamic collapse for the acute TPE. The details in the "MULTIDISCIPLINARY EXPERT CONSULTATION" and "DISCUSSION" of "*Pregnancy management*".

4. The whole description of case report is redundant and should be more concise. For example, in the section of differential diagnosis, comparison of venous thrombosis with amniotic fluid embolism and venous air embolism (echo findings etc.) in this particular case should be discussed rather than detailed explanation of each general feature.

Response: thank you very much for your reminding. The manuscript has been revised and refined. I have supplemented "*Differential diagnosis*" in "DISCUSSION" to discuss the TTE diagnostic method of APE, amniotic fluid embolism and venous air embolism.

5. This reviewer recommend the authors to add a figure instead of Table 2 to give clear understanding the clinical course at a glance.

Response: Table 2 has been transformed into figure 3.

6. References are necessary for the following sentences. Most reported cases of thromboembolic PE during pregnancy or CS are considered to be caused by thrombosis originating from the deep veins of the lower limbs or the pelvic he veins. CS itself is a risk factor for venous thrombosis¹⁴ and AF, and neither standardized anticoagulation therapy nor heart failure treatment were administered during pregnancy, which are other conditions that promote the development of thrombi. Most cases of intraoperative PE or cardiovascular and respiratory diseases occur after the removal of the foetus or placenta during CS Intraoperative echocardiographic monitoring has received increased attention. Thrombotic PE in pregnant women with heart disease may be one of the causes of maternal mortality during CS.

Response: all of the above sentences has been added references.

Thank you again for your valuable advice. Best wishes for you.

Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: The manuscript is an interesting case report. I find it useful to classify the case according to Robson's criteria (in the discussion part). Cite: Dimitriu M, Socea B, Ples L, Gheorghiu D, Gheorghiu N, Neacsu A, Cirstoveanu C, Bacalbasa N, Furau CG, Furau GO, Banacu M, Ionescu CA. Criteria for Cesarean Section-an Imperative and Emergent Necessity in Romanian Obstetrics. Rev. Chim. 2019 Mar;70(3):1058-1061. doi: 10.37358/RC.19.3.7063. It would also be useful to deepen the prevention methods of DVT and PE in all situations, most common being cancer with high risk. (cite: Iorga RA, Bratu OG, Marcu RD, Constantin T, Mischianu DLD, Socea B, Gaman MA, Diaconu CC. Venous thromboembolism in cancer patients: Still looking for answers. Exp Ther Med. 2019 Dec;18(6):5026-5032. doi: 10.3892/etm.2019.8019).

Thank you very much for your recognition and support of my article. Best wishes for you!

Thank you very much for your valuable suggestions on my manuscript. According your suggestions, I have modified and now I response one by one.

Round 2:

The authors responded to this reviewer' some comments adequately. However, inadequate in some ones.

Major

1. Figure 3 looks like just a translation of figures to the lines. I think this figure does not work for the readers to understand the clinical and physiological course comprehensively at a glance.

Response: Since Figure 3 may not be appropriate for this article, so I have removed it.

2. In discussion, the description of *Amniotic fluid embolism and Venous air embolism*

is still redundant. I recommend the authors to focus on the differential diagnosis in this particular case.

Response: It has been streamlined as recommended.

Minor

There are many typos and grammatical errors. The followings are just examples. More rigorous English proof reading is definitely mandatory.

Response: Sorry for those mistakes. It have re-edited by native English speaking editors.

Page 6

When TTE discovered the IVC thrombus, We urgently organized the multidisciplinary team (MDT) discussion for rescue plan.The team included the department of obstetrics,

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the physician required a regular follow-up to prenatal examination one month a month in the second trimester

Page 8

Lines 1-2 At 33 wk of gestation, she experienced severe heart failure and admitted to ICU at our hospital.the patient was treated for cardiotoxicity,

Line 6 During the CS, when we discovered the IVC thrombus, we made a MDT discussion and

Line 10 The patient's

with LMWH 30 mL q12 h for 3 days

warfarin 2.5 mg qd anticoagulant therapy

Page 10 Lines 7-8

In this case, the development and changes in the thrombus rapidly but without serious consequences.

Differential diagnosis

TPE Patients present with wheezing, dyspnoea,

However, their pathological mechanisms