Author's response to reviews

Title: A case report of successful vaginal delivery following intrauterine fetal death due to placental abruption: Importance of intrapartum anti-disseminated intravascular coagulation therapy

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Author's response to reviews:

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Michael Kidd
Editor-in-Chief
Journal of Medical Case Reports

Dear Dr Kidd:

We would like to submit our manuscript entitled “A case report of successful vaginal delivery following intrauterine fetal death due to placental abruption: Importance of intrapartum anti-disseminated intravascular coagulation therapy” for publication as a case report in Journal of Medical Case Reports.

The manuscript has been carefully rechecked and appropriate changes have been made in accordance with the reviewers’ comments. The revisions made in the manuscript are shown in red font. The responses to the reviewers’ comments have also been prepared and uploaded through the submission system.

We thank the reviewers for their helpful comments and hope that the revised manuscript is now suitable for publication in your journal.

Thank you for your consideration. I look forward to hearing from you.

Sincerely,

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Authors' response to reviewer comments

Response to Reviewer 1

Comment 1: This Case Report describes a condition which is fairly common and previously reported. The quality of the case summary and discussion are fairly good, but the interest (as described by the authors) comes from a peculiarity to Japanese medicine (common practice of early cesarean delivery in the setting of placental abruption) which would not be of general interest to an international audience (to whom the concept of decision on mode of delivery by maternal condition/stability, with a preference for facilitated vaginal delivery, would be common practice). I’d therefore suggest resubmission of the report for publication in a local/regional journal.

Response: Thank you for your suggestion and comments. However, we feel that the decision regarding the mode of delivery based on maternal condition/stability following intrauterine fetal death due to placental abruption is one of the most important issues in Japanese obstetrics and gynecology field. There is still insufficient evidence that supports the benefits of vaginal delivery, as reported in the cited Cochrane Database Systematic Review (Interventions for treating placental abruption), and it is still reasonable to consider that delivery should be completed within 6–8 h after the onset of placental abruption to avoid worsening of DIC and organ damage. In this case report, we suggest that the correction of coagulopathy may have caused effective uterine contractions, similar to the uterine atony accompanying DIC. We believe that the intrapartum resuscitation of coagulopathy is universally important to prevent massive obstetrical hemorrhage in the cases of placental abruption. Therefore, rather than submit to a local/regional journal as you suggested, we thoroughly improved our manuscript based on your comments to be of general interest to international readers. Accordingly, we also revised the title of our manuscript.

Response to Reviewer 2

Comment 2: Honda and coll describe the case of a 37 yrs old patient, who developed an intravascular disseminated coagulation after a fetal death following placental abruption.

I have only few questions:

- Was the patient studied for inherited and acquired causes of thrombophilia?
- Did she show other risk factors for the development of obstetric complications?
- Was a personal or familial history of venous thromboembolism reported?

Response: Thank you for your suggestions and comments.
Regarding your first question, we regret to say that the patient was not tested for thrombophilia because the relevant tests are not covered by the Japanese national health insurance system.

Regarding your second question, we added information about the presence of potential risk factors for the development of obstetric complications on page 4, line 19.

Third, we added the detail on her history of venous thromboembolism on page 4, line 19.

Response to Reviewer 3

Comment 3: This is a case report on a very relevant topic today in Obstetrics. The manuscript is well written and you can tell that the authors took time in researching background information in preparation to write this paper.

This first question I have is why this patient was transported 2 hours and 30 minutes after being diagnosed with an abruption? As you demonstrate in your report, her abruption was 50%, but she had massive concealed bleeding that caused her to go into DIC. If the diagnosis was made and induction of labor would have been initiated from the time of diagnosis, she may not have gone into DIC. It was even suggested in your own words “if delivery is prolonged, DIC may become more severe,” I am not sure if this patient was in a rural setting, or what the circumstances were, but I think this needs to be explained because for the reader it is very unclear.

Also to follow up on question #1, was there labs drawn when the diagnosis of fetal demise/abruption was diagnosed? Was she in DIC then, or did it happen at a later time?

Response: Thank you for your comments.

In the conventional Japanese obstetric system, more than half of deliveries are managed in private clinics that have only a few obstetricians and very limited medical resources such as blood tests and blood transfusion. Therefore, severe cases must be transported to tertiary centers for necessary management.

Blood tests were performed at admission (4:30 AM). We added the findings to page 5, line 12.

My second comment is... it is not typical to see a post-term abruption happen, placental abruption usually happens between 24 and 27 weeks. The authors really do not comment on if this patient had any risk factors or not to cause this to happen so late in her pregnancy...

Response: We added information regarding the patient’s risk factors for placental abruption on page 4, lines 19–22. She had no known risk factors.

My third comment is, the authors states that, the reason for proceeding with induction of labor, was because there was a lack of external hemorrhage...Im not sure about the lucid state the patient was in when she arrived to the referral
center, but the reason induction proceeded was because the patient was stable as demonstrated by her vitals and labs....

Response: We added information regarding her vital signs and laboratory test results on page 5, line 24 and page 6, line 1. As you pointed out, we selected vaginal delivery because her vital signs were stable and no sign of organ failure was detected by the laboratory tests.

At what point in the induction process, did her mental status improve? As far as the method of induction, the authors state that they started pitocin at approximately 530am. By 9am effective contractions were still not seen and the pt was not in labor after 4 hours of being on pit, while she was progressing further into worsening DIC, my question is, why wasn’t amniotomy performed immediately? The patient arrived 3cm dilated, what was the delay? Induction should have been aggressive, especially with a dead fetus and active DIC...

Response: As we indicate in the revised manuscript, we cannot deny the possibility that the delay in the amniotomy may have prolonged the labor. However, we also noted that effective labor was observed at the same time as the improvement in blood fibrinogen level. Therefore, we assumed that the coagulation factors in the fresh frozen plasma may have promoted effective uterine contractions, similar to that for uterine atony caused by DIC. The patient’s mental state may not have been improved until effective labor was achieved by the amniotomy as well as the correction of fibrinogen level. We revised our manuscript accordingly on page 7, lines 19–22.

Can you please explain why the uterus was packed if there was no heavy bleeding after delivery? Is this a routine maneuver that is performed at your institution? Usually if there is no heavy bleeding after delivery the uterus is left alone, and if there is bleeding later on, I would want to know about it, and not conceal it with packing. But if there was bleeding after delivery, please clarify this...

Response: We added the reason for the uterine packing on page 6, lines 14-16. Because slight uterine atony was observed, we opted for packing to prevent additional bleeding.