Author’s response to reviews

Title: An unusual cause of delayed hematoma after carotid endarterectomy: A case report

Authors:

Yi Zhao (jshmzxzy@126.com)
Zhichao Lai (zhichao_lai@126.com)
Rong Zeng (paladin.zeng@hotmail.com)
Changwei Liu (liucw@vip.sina.com)
Xuebin Wang (punchxuebin@163.com)
Rui Zhang (dr_rickyzhang@163.com)
Wei Ye (yewill18@126.com)

Version: 1 Date: 21 Jun 2019

Author’s response to reviews:

Giulio ILLUMINATI, MD (Reviewer 1):

A. The Authors' conclusion of cancer triggering DIC, which in turn caused hematoma is reasonable. However some more details should be provided, in particular: 1) the authors should stress that postoperative blood pressure was closely controlled, as a postoperative, undetected hypertensive status can trigger a progressive hematoma; 2) the authors should provide informations on postoperative anticoagulation administered to the patient (low molecular weight heparin and aspirin, aspirin alone, low molecular weight heparin and aspirin…)

Answer: Thank you for your comments. We have added postoperative blood pressure control and anticoagulation information in the manuscript (Case presentation, paragraph 2).

B. A major, professional English language revision is mandatory.

Minor remarks:

# 1 Background, page 3, line 50: "surgical skills" would better read "technical flaws"

# 2 Background, page 1, line 1: "We discussed" would better read "We discuss"
# 3 Case presentation, page 4, line 15: "in Dec, 2017" would better read "on Dec, 2017"

# 4 Case presentation, page 4, line 20: "infarction lesions" would better read "infarctual lesions"

# 5 Case presentation, page 4, line 20: "and old infarction would better read "and an old infarction"

# 6 Case presentation, page 4, line 26: "history including" would better read "history included"

# 7 Case presentation, page 4, line 28: "Aspirin has been administered" would better read "Aspirin had been administered"

# 8 Case presentation, page 4, line 36: "A standardized" would better read "A standard"

# 9 Case presentation, page 4, line 45: "On the second day" would better read "On post-operative day 2"

# 10 Case presentation, page 5, line 4: HGB 107 g/L" would better read "10.7 mg/dl"

#11 Case presentation, page 5, line 25: "neck hematoma removal" would better read "neck hematoma evacuation"

# 12 Case presentation, page 6, line 41: "during the first half year after the surgery" would better read "during a follow-up period of 6 months"

# 13 Discussion and conclusions, page 7, line 9: "hematoma evacuation was 6 hours" would better read "hematoma evacuation is 6 hours"

# 14 Discussion and conclusions, page 7, line 12: "surgical skills including" would better read "surgical technique including"

# 15 Discussion and conclusions, page 7, line 23: "Here we described" would better read "In this report we described"

Answer: Thank you for your advice. We have included all these suggestions in our revised manuscript and we have had the manuscript thoroughly revised, especially the grammar and vocabulary. We would like to have our manuscript edited by professional language editing service if it is necessary.
Gianfranco Varetto (Reviewer 2):

1) 4 Lines 14-18: The presentation affirms that infarctions are present in both cerebrums and there is sign of an old infarction in the occipital lobe, but it only describes an asymptomatic carotid stenosis the right ICA. We reckon that adding an overview of both carotids and vertebrobasilar circulation, if available, is advisable

Answer: Thank you for the comment. The patient had his intracranial circulation examined before surgery by transcranial doppler (TCD). We have added the result of TCD in the manuscript (Case presentation, paragraph 1).

2) Page 4 Lines 28-30: Examining the medical history of the patient, we find that he already has a diagnosis of prostatic hyperplasia. If available, data related to this diagnosis could allow a comparison between them and what you found while treating the patient.

Answer: Thank you for the comment. We agree that medical records related to the diagnosis of prostatic hyperplasia are important. However, the patient had this diagnosed in local hospital and we didn’t have access to these records, which were recognized as unimportant before the surgery.

3) Page 4 line 53: It is here reported that the patient had tracheal deviation. Compare with page 7, line 34, which describes the trachea as central. This passage needs revision.

Answer: Thank you for your careful review. We have revised the error in the manuscript (Case presentation, paragraph 3).

4) Page 5 line 1: We can read that the symptoms worsened over one hour and a half and he lost consciousness in three minutes. Does this imply that he, in that time, progressively lost consciousness or that he stayed unconscious for three minutes? We think that a better clarification of the timeline and some information on how it has been assessed can improve the description.
Answer: Thanks for your comment. We have clarified this in the manuscript. The patient lost consciousness progressively along with a sudden drop of oxygen saturation to 74% with face mask at 8L/min. And we thought that aspiration might account for this.

5) Page 5 line 6: Platelets are initially described as normal, and then we can see that they drop to low values. This implies that a second blood test was performed. Clarification on this passage and on its results is needed. Secondly, no data are available regarding the preoperative situation of the coagulation. We think that a comparison, in order to define if the patient didn't have elements that could have suggested a non-overt DIC even before the intervention, could be useful. Lastly, mentioning if other causes of bleeding were ruled out could improve the diagnostical description (e.g. the combination of non-overt DIC and heparin induced thrombocytopenia, if heparin was administered)

Answer: Thanks for your comments.

1. A detailed timeline of platelet count change is illustrated in Figure 1. Although the platelet count was within the normal range at the onset of bleeding, it continued to drop to a low level after the second surgery (hematoma evacuation). We’d like to show that coagulation profile indicated the existence of DIC, so we listed the lowest platelet count, which was measured after the second surgery. It didn’t mean that a second blood test was performed before the second surgery. We have deleted this as it may result in confusion of the timeline.

2. We have added preoperative coagulation profile in the manuscript (Case presentation, paragraph 1).

3. We have added a paragraph of differential diagnosis ruling out other causes of bleeding (Discussion and Conclusions, paragraph 2).

6) Page 5 lines 27-31: "blood was observed…bleeding cannot cease". We observe a tense shift, from simple past simple to simple present in the same sentence. Please check for this kind of issues in the manuscript.

Answer: We have checked this kind of issues in the manuscript and revised them all. We have had the manuscript thoroughly revised, especially the grammar and vocabulary. We would like to have our manuscript edited by professional language editing service if it is necessary.
7) Page 6 lines 26-43: A bone scan was performed and it showed diffused metastasis in thoracic bones. Are there any other preoperative imaging study that can improve the definition of the case and support the metastasis finding?

Answer: Thank you for the advice. We agree that preoperative imaging could improve the case presentation. However, the only preoperative imaging we had was the chest X-ray, which was a routine preoperative examination. We didn’t find sign of bone destruction or hyperostosis indicating bone metastasis. Also, alkaline phosphatase and serum calcium were both within the normal range, which were related to bone metabolism and their disorder might indicate bone metastasis.

8) Page 8 lines 6-54: Case reports shows that hyperfibrinolitic DIC is a rare complication associated with metastatic prostate cancer, as found in the patient described. In this section, you recommend the execution of PSA and ultrasound in patients presenting with prostatic symptoms, adding that early stage cancer detection is difficult. We think that a better clarification is needed on which stage of the disease should be investigated, considering that the proposed diagnostic means are currently discussed for leading to an overdiagnosis of early stage prostate cancer, which seems not to be related to the development of DIC. Therefore, we think that a more comprehensive indication, supported by literature, of who, and by what means, should be subjected to preoperative tests and what stages of the disease could be responsible of the symptoms described in your patient could greatly improve the conclusions.

Answer: Thanks for your comment. PSA is recommended to screen for prostate cancer in guidelines [1]. However, guidelines also focus on overdiagnosis and have strict recommendations on whom should accept screening. Therefore, we highly appreciate that you can point out this issue. It is not appropriate to arbitrarily recommend any examination related to prostate cancer and we also cannot find any literature to support this. Actually, take-home message of this case report is that surgeons should be aware of this rare but catastrophic complication and alert to DIC once unexplained thrombocytopenia or unusual bleeding occurs in patients who have prostatic symptoms during perioperative period. We have made substantial revisions on the conclusion part.
9) Figure 2: The PET image shows normal captation in only one of the kidney and elevated creatinine has been reported in the article as a cause for hematoma formation. Reporting a brief explanation of this finding in the medical history of the patient is advisable.

Answer: We also noticed this abnormity in one of the kidneys. However, preoperative blood test indicated that serum creatine was within normal range (1.1mg/dL). Also, in the case-control study[2], which shown that elevated serum creatine was associated with higher risk of hematoma, mean serum creatine was (1.6±0.3)mg/dL in hematoma group and (1.2±0.2)mg/dL in control group. Therefore, renal function was not a risk factor of hematoma in our patient.

Reference
