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# Spontaneous Acute subdural hematoma for Hemophilia (A) patient: Case report

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#### Abstract

Spontaneous Acute subdural hematoma for Hemophilia patients with symptomatic its very rare condition and very difficult for decision making and surgical intervention, in the literature most of cases managed the conservative or delaying intervention.

In our report presenting symptomatic and specially had allergic with Fresh frozen Plasm which it makes difficult to surgical intervention, although this condition we successful operated and managed continuous infusion of the Factor VIII with multidiscipline approach.

Keywords: Hemophilia; Spontaneous Acute Subdural Hematoma; Factor VIII

## 1. Introduction

Intracranial hemorrhage its very rare ,and challenging condition to treat , specially patients with hemophiliacs , The risk-benefit ratio that tilts the balance between conservative and surgical management is very subtle, Surgical treatment bears the risk of rebleed, whereas conservative management runs the risk of rapid deterioration and high treatment cost [1], in our case we discussing the spontaneous acute subdural hematoma on right occipital with hemophilia type A, symptomatic presentation , additionally have allergic for fresh frozen plasm , which its very dilemma for treatment of surgical , and was very critical to preventing bleeding intraoperative.

## 2. Case Report

A 24 year old male patient admitted in department of the Emergency for headache suddenly onset ,on the occipital mainly fallowed neck pain spontaneous associated vomiting and blurred vision ,no loss of consciousness , or weakness of the limbs , no history of fever , and trauma wasn't reported , he was diagnosed by Hemophilia Type A and was fallow up with department of Hematology last 5 years ,and positive history of fresh frozen plasma allergic , there is no positive history with his sister , clinical examination , physically patient weight loss , and pale, no jaundice ,cyanosis, he is cons Glasgow coma scale 15 , vital signs was normal ,hemodynamically and respiratory stable , temperature is  $36.6^{\circ}C$  , walking impossible for vertigo , normal tone ,and strength is 5/5 , coordination and reflex all are normal , no neurological deficit , sensory or motoric , on the examination , there is positive signs of meningism , neck was stiff , kernigs sign , and brudsinizks all are positive ,.

The blood investigation:-CBC was normal, (hemoglobin;-14.5, leukocytes:-11.7, thrombocytes 276), electrolytes also are normal, blood glucose normal 0.86 g/l.

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Coagulation profiles are ;-PT;-(75%), BT ;-(14.2 sec), INR ;-(1.22) PPT;-(3.75),

Fibrinogen (3.3 g/l), active factor VIII (2.8%) normal range is (50-145) its low, anti-factor VIII inhibition is (17.44).

For radiological: - CT scan of the brain without contrast. Report extra-axial crescent shape hyperdense measurement 18 mm on the temporo-pariato-occipital at right which is acute subdural hematoma left side, and subarachniodal hemorrhage spontaneous.



Figure 1 Subdural hematoma on the right occipital 18mm. subarachniodal hemorrhage spontaneous.

After operated for evacuation of the hematoma and was continues infusion of the Factor VIII

Patient was decubital lateral and head deviated contralateral side of the hematoma, and incision of curve liner on the right, and done Craniectomy and securing the good hemostatic with bipolar and surgical and suture plan per plan, figure (2)



Figure 2 Incision of curve liner on the right

Patient immediately extubated in the OR, post op patient was GCS 15/15 without deficit, and under medication of the antiepileptic and anti-pain also continue the infusion of the Factor VIII, post op control scan shows complete evacuation of the Hematoma 24 hours after figure (3)



Figure 3 After 24 hours post op





## 3. Discussion

Spontaneous intracranial hemorrhage is a rare complication of hemophilia, with frequency of about 2.2–7.8% [2], and a mortality of 34% [3]. It is a life threatening complication and needs emergent neurosurgical intervention.

In our case patient was continuous infusion of the factor VIII preoperative, and continue postoperative the main difficult was the patient had history of allergic for FFP which is making the our surgical procedure more difficult and all the team was actively act the reduction of the bleeding intraoperative, comparing the other case similar but don't have the allergic for FFP,

However, these treatments may lead to complications such as hemolysis and platelet dysfunction because of hyperfibrinogenemia, leukopenia, and Gram-negative sepsis. We infused our patient with 200 ml fresh frozen plasma on the 1st postoperative day to increase blood capacity. However, plasma infusion alone may not decrease the danger of bleeding. Infusing only fresh frozen plasma may increase the risk of hemorrhagic infarction and acute SDH, which will require additional operation(s) [4,5].

In our case respond immediately postoperative and not develop any complication, Because we don't administrate the FFP intraoperative and postoperative, and successful recovery the patient without recurrence of the hematoma and resolve also headache and blurred vision.

## 4. Conclusion

Most of the spontaneous subdural hematoma associated with hemophilia Type A it's very rare cases, and need very curious and careful approach for surgical treatment.

All cases need multidisciplinary approach to reduce risk of the recurrence of the bleeding.

In our case no need for ICU and successfully discharge without post-op complication,

Although was more challenge comparing same cases those are easily transfusion of FFP instead our case had allergic for FFP.

Also we recommended for continuous infusion of the factor VIII preoperative, intraoperative and postoperative will be given excellent outcome, and minimal invasive with less hemorrhagic technic with improve prospective of patient with Hemophilia.

## **Compliance with ethical standards**

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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