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Case Report: Cerebral Venous Thrombosis due to Antiphospholipid syndrome Present as Subarachnoid Haemorrhage

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Abstract- ***Cerebral venous thrombosis (CVT), also known as cerebral venous sinus thrombosis (CVST), is an uncommon but it responsible for 0.5% of all stroke cases, and usually it affects young female. Most cases of CVT present with headache also seizure and motor weakness 48-year-old female, housewife , presented to AL–Ehsan Hospital with with gradual onset, progressive headache one week prior to admission, associated with frequent vomiting for the last three days -. On examination, GCS was 14\15 (E4V5M6), chest was clear , and abdomen was soft. She had right sided upper motor neuron facial nerve palsy. Power of right side upper and lower was 3\5 with hypotonia and hyporeflexia , with impaired swallowing test. patient was sent for non- contrast CT brain which revealed subarachnoid haemorrhage with dense sagittal and transverse sinuses on MRV. IgM ACL antibodies was elevated .On background of dural sinus thrombosis, antiphosolipid syndrome was diagnosed. Patient Patient condition improved, vomiting stop, headache subsided, swallowing became normal, and NG tube was removed. Patient start oral intake smoothly and discharged after 14 days on good condition Enoxaparin 80 mg SC OD was initiated for seven days , then on day 8 enoxaparin was increased to 80 mg SC BD for further seven days We have to put in mind that CVT may presents atypically as SAH and risk factor must be searched to prevent further attacks of thrombosis.***

Indexed Terms- ***cerebral venous thrombosis; subarachnoid haemorrhage; antiphospholipid syndrome, antiphospholipid syndrome, cerebral venous thrombosis, subarachnoid haemorrhage.***

I. INTRODUCTION

Cerebral venous thrombosis (CVT), also known as cerebral venous sinus thrombosis (CVST), is an uncommon but it is important cause of stroke, responsible for 0.5% of all stroke cases , and usually it affects young female [1].

It is due to thrombosis affecting cerebral venous sinuses, which account for draining blood from the brain. This thrombosis may lead to both ischemic and hemorrhagic strokes [1].

CVT has many risk factors include medications, malignancies , pregnancy ,thrombophilia , infection and trauma

Most cases of CVT present with headache also seizure and motor weakness [2]

Many complications may occur including venous haemorrhage and infarction, subarachnoid haemorrhage, residual epilepsy, development of AV fistula , pulmonary embolism and coma [3]

CVT has may present atypically like subarachnoid haemorrhage, and also it may be atypical manifestation of some diseases like what reported in this case of antiphospholipid syndrome and crhon disease as reported by Jigisha Amin et al [4]

II. CASE REPORT

48-year-old female, housewife, with clear medical background, presented to AL–Ehsan Hospital, Merowe city, northern Sudan, in September 2025, with gradual onset, progressive headache one week prior to admission, associated with frequent vomiting for the last three days, seen in emergency room ,diagnosed as malaria, received antimalarial and sent home. Two days later, headache increased in frequency and intensity. vomitting became more frequent . On the same day of admission patient developed slurred of speech and confusion.

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On examination, she was in pain, with slurred speech ,normal breathing pattern , pulse rate 90 bpm, blood pressure 160\90 mmgh, Spo2 94% on room air, GCS was 14\15(E4V5M6), chest was clear , and abdomen was soft. She had right sided upper motor neuron facial nerve palsy. Power of right side upper and lower was 3\5 with hypotonia and hyporeflexia , with impaired swallowing test .Rest of examination was unremarkable.

Two wide bore canulae was inserted, baseline investigations were taken (Table 1] and immediate resuscitation was start. Initial diagnosis was cerebrovascular accident. NG tube size 16 and two way silicone catheter wrere inserted. Then patient was sent for non- contrast CT brain which revealed subarachnoid haemorrhage (image 1) with dense sagittal and transverse sinuses and radiologist suggested MRV to be done.

Table 1: Pretreatment investigations

Hb	12.9 g/dL
MCV	82 fL
MCH	32.5 pg
MCHC	30 g/dL
WCC	27 10^9/L
PLTS	186.000 per microliter
ESR	15 mm after one hour
Serum Albumin	3.9 g/dL
Serum creatinine	0.7 mg/dL
INR	1.0
CRP	5 mg/dL
TSH	2.4 *mU/L*
Viral screening	Clear
Serum bilirubin total: Direct Indirect	0.6 mg\dl 0.2 mg\dl 0,4 mg\dl

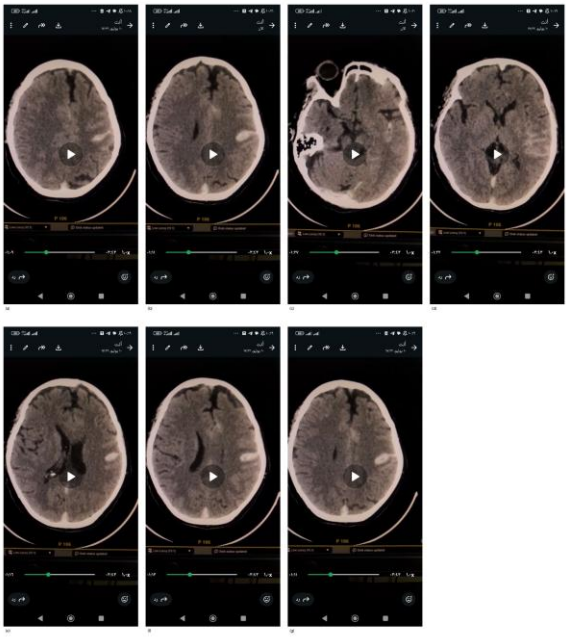

Fig. 1: Non- contrast CT brain

MRV was done (image 2) , showed dural sinus thrombosis (superior sagittal, transverse and straight sinuses) with haemorrhagic venous infarcts Patient was admitted to ward with frequent vital signs monitoring.

ANA profile, Anticardiolpin (ACL) and antiphospholipid (APL) antibodies were requested (Table 2). IgM ACL antibodies was elevated .On background of dural sinus thrombosis, antiphosolipid syndrome was diagnosed.

Feeding through NG tube was start, with skin ,sphincters and mouth care. Intravenous proton pump inhibitor added. Enoxaparin 80 mg SC OD was initiated for seven days , then on day 8 enoxaparin was increased to 80 mg SC BD for further seven days. Patient had daily physiotherapy sessions.

Patient condition improved, vomiting stop, headache subsided, swallowing became normal, and NG tube was removed. Patient start oral intake smoothly and discharged after 14 days on good condition (Table 3). Patient discharged on HCQ 200 mg tabs BD, amlodipine 5 mg and rivaroxaban 15 mg tabs BD. Patient came three weeks later for follow up , she was ambulant with some slurred of speech, with normal BP . Rivaroxaban was changed to 20 mg OD

Table 3: Investigations prior to discharge

Hb	11.8 g/dL
MCV	90.5 fL
WCC	8 10^9/L
PLTS	320.000 per microliter
Serum creatinine	0.9 mg/dL
INR	1.1
CRP	8 mg/dL
Serum bilirubin total: Direct Indirect	0.9 mg\dl 0.3 mg\dl 0.9 mg\dl

III. DISCUSSION

Cerebral venous thrombosis is not so common, but is fatal if missed diagnosed or not well treated.

The above mentioned reported case of cerebral venous thrombosis due to antiphospholipid syndrome had a typical presentation as subarachnoid haemorrhage and that goes with what also reported by Neslin Sahin et al [5] who reported a case of subarachnoid hemorrhage (SAH) as the first manifestation of superior sagittal sinus thrombosis , also same presentation was reported by Monique Boukobza et al [6] who studied series of CVT cases present as SAH but differs in that in our case all superior sagittal, transverse and straight sinuses were thrombosed .

IV. CONCLUSION

Cerebral venous thrombosis may manifests a typically with many presentations like subarachnoid haemorrhage.

So, attention should be made that Cerebral venous thrombosis may be an underling cause for subarachnoid haemorrhage, also it is important to mention that searching for underlying cause of dural sinus thrombosis is cornerstone in management, in addition to that in such case it is better to start anticoagulant in once daily dosage and then increase dose slowly to prevent exacerbating haemorage and to prevent complications.

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