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RESEARCH ARTICLE

CEREBRAL VENOUS SINUS THROMBOSIS AS A CAUSE HEADACHE IN A PATIENT WITH DEHYDRATION

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ABSTRACT

Headache is the most frequent symptom in patients with cerebral venous thrombosis. However, patients presenting with solely headache in cerebral venous thrombosis are uncommon. We report a patient who is a smoker, presented with headache and a history of dehydration secondary to gastroenteritis. Magnetic resonance venogram of brain showed thrombosis of the left transverse, sigmoid sinus. Patient was treated with heparin and warfarin and improved on treatment. So in smokers with newer onset of headache and with history of dehydration, cerebral venous sinus thrombosis should be considered as a possible diagnosis.

INTRODUCTION

Cerebral venous sinus thrombosis (CVT) is an elusive diagnosis because of its nonspecific presentation and its numerous predisposing causes. Common etiologies include hypercoagulable diseases, dehydration, low flow states, adjacent infectious processes, malignancies, systemic diseases, oral contraceptives, hormonal replacement therapy, pregnancy and puerperium. The most common presenting symptoms include headache, seizure, nausea, focal neurological deficit and coma[1]. Patients presenting with only headache in CVT is rare and it is a rare complication of dehydration. We report a case of lateral and sigmoid sinus thrombosis caused secondary to dehydration and which presented only with complaints of headache.

Case report

A 40 year old man who is a smoker presented with headache, threedays after an episode of gastroenteritis. The headache was mainly present in theoccipital region and neck; he was having no history of similar complaints in the past. Pain was of dull aching type, more in themorning and no postural variation. He was prescribed analgesics butafter 3 days he reported back with worsening of headache along with vomiting. He had no past history of hypertension, diabetes, cerebrovascular accident and visual problems. His clinical examinations werenormal except fundus showing papilloedema. Laboratory investigationshowed Hemoglobin 18 gm%, platelet count 4 lack/mm3 blood sugar102mg%, Hematocrit 49%, normal liver and renal function test.Chest skiagram showed prominent broncho alveolar markings. Computerized tomogram and magnetic resonance image of brain wasnormal. Magnetic resonance venogram of brain showed thrombosis of the left transverse and sigmoid sinus (Figure 1). An examination of the cerebrospinal fluid showed a pressure of 280mm of water, 2/mm3 of white blood cells, 36 mg/dL of protein and 70 mg% glucose. Antinuclear antibody, anti Ds DNA, antibodies were negative. Thyroid function test, homocystein, protein C, Protein S level andlipid profile were normal. Factor V Leiden and prothrombin mutation were negative. Peripheral smear and bone marrow examination were normal. Heparin infusion was started after admission along with warfarin, acetazolamide given to reduce intracranial pressure. Headache decreased after 7 days of heparin therapy and patient discharged on warfarin. During follow up patient was maintained on INR 2 to 3. After 6 months patient was not having headache and fundus showed resolution of papilloedema.

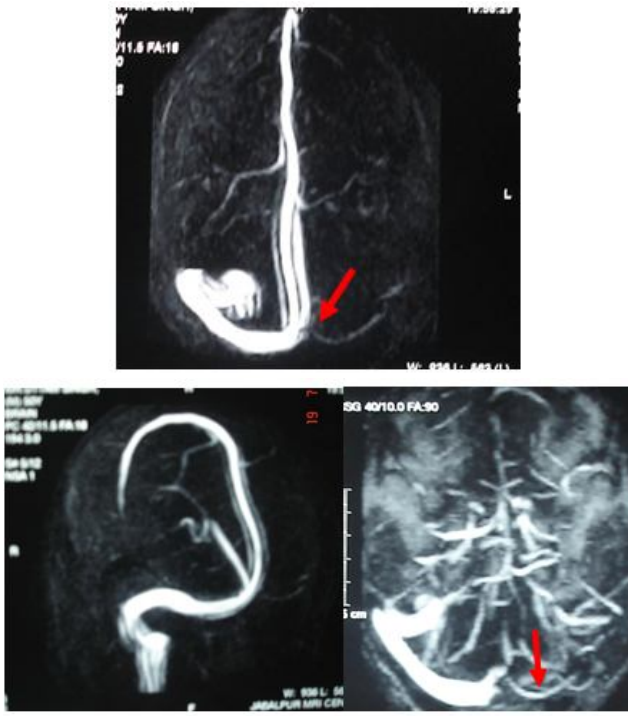

Figure 1. Magnetic resonance venogram of brain showing absent flow in the left transverse and sigmoid sinus suggestive of thrombosis (arrow)

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DISCUSSION

Cerebral venous thrombosis is a rare cause of headache. Ameri *et al*. in their description of 110 patients with cerebral venous thromboses, found a wide spectrum of clinical presentation, including headache, papilloedema, motor or sensory deficits, sensorial disturbance, dysphasia and cranial nerve dysfunction[2]. The relative rarity of this condition as compared with other disorders that manifest many of the above-described findings heightened the diagnostic dilemma. A diverse array of etiologic factors has been implicated in CVT, including pregnancy, oral contraceptives, septic trauma, local or disseminated intracranial infection, malignancies, neurosurgical operations, cerebral infarctions and hemorrhages, severe dehydration, systemic lupus erythematous, and Behcet disease. A precise pathogenesis cannot be ascertained in at least 20% to 35% of cases[3]. The average delay from the onset of symptoms to the diagnosis is seven days[4]. The most sensitiveexamination technique is MRI in combination with magneticresonance venography[5]. Treatment options are systemically deliveredanticoagulation therapy, chemical or mechanical thrombolysis[6]. Inour patient the symptom was headache and the predisposing factorwas dehydration secondary to gastro enteritis. He was havingpolycythemia due to chronic smoking and the dehydration probably increased the viscosity. There are few similar case reports in thejournal. Bilgin *et al*. reported a case of severe CVT due todehydration in patient afterfasting[7]. Shigeru Saito *et al*. reported a case CVTin high-altitude climbers due topolycythemia induced bydehydration[8]. So based on our report, CVT should be included in theetiological diagnosis of worsening headaches especially with a historyof recent dehydration.

REFERANCES

1) Lemke DM, Hacein-Bey L. Cerebral venous sinus thrombosis. J NeurosciNurs 2005; 37: 258-64.
2) Ameri A, Bousser MG. Cerebral venous thrombosis. NeurolClin**.** Feb 1992;10(1):87-111.
3) Deschiens MA, Conard J, Horellou MH. *et al*. Coagulation studies, factor V Leiden, and anticardiolipin antibodies in 40 cases of cerebral venous thrombosis. Stroke 1996; 27:1719-1720.
4) Ferro JM, Canhao P, Stam J, Bousser MG, Barinagarrementeria F. Prognosis of cerebral vein and dural sinus thrombosis: results of the International Study on Cerebral Vein and Dural Sinus Thrombosis (ISCVT). Stroke 2004;35:664-70.
5) Lafitte F, Boukobza M, Guichard JP, *et al*. MRI and MRA for diagnosis and followup of cerebral venous thrombosis (CVT). ClinRadiol 1997;52:672-9.
6) Fernandes A, Ribeiro C, Marques C, Reis J. Venous cerebral thrombosis. Mechanical and chemical thrombolysis.Acta Med Port.2003; 1:213-5.
7) O. Bilgin, H. Horozoğlu, I. Midi, S. Aktan: Cerebral Venous Thrombosis Due To Fasting: Case Report. J NeurolSci [Turk] 2007; 24:80-83
8) Shigeru Saito, MD; So-kichi Tanaka, MD. A Case of Cerebral Sinus Thrombosis Developed During a High-Altitude Expedition to Gasherbrum I. Wilderness and Environmental Medicine: Vol. 14, No. 4, pp. 226–230.

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