Case Report

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Top of Basilar Syndrome

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Abstract

Top of Basilar syndrome(BTS) is defined as ischemia of the areas fed by the distal basilar artery (brainstem, thalamus, cerebellum, temporal and occipital region). It shows many different symptoms. Usually visual and oculomotor disorders, changes of mind, speech disorders, seizures and hallucinations are observed. Beginning symptoms include epileptic seizures, decreased speech and inappropriate laughter, and hallucinations.This our article is that prensentation of neurological analysis in the management of cases with sudden behavioral disorders.The aim of our study is to show the presence of rare diseases among the symptoms commonly seen in the emergency department, like BTS disease. In study, A patient diagnosed with BTS with rare symptoms is presented. Clinicians should be careful about BTS.Because BTS can be encountered with sudden mood swings, personality changes and behavioral disorders and is a high rate of mortality.

Keywords: Hallucinations, distal basilar artery, oculomotor disorders

Introduction

Cerebro Vascular Disease (CVD), which develops due to bacillary artery occlusion, accounts for 4% of all CVDs. Top of Bacillary syndrome, due to distal bacillary artery occlusion, causes a clinical figure with various loss of consciousness, amnestic states, involuntary movements, and hallucinations (1). In the etiology of the disease; Congestive Heart Failure (CHF), Coronary Artery Disease (CAD), Atrial Fibrillation (AF), Diabetes Mellitus (DM), Hypertension (HT).DM alone is a risk factor with a higher mortality rate in CVD patients (2). It is usually fatal and may not be diagnosed because it does not contain specific findings. Patients are generally male and the lesion is generally located in the thalamic region.

Case Report

A 53-year-old male patient was brought to the emergency, due to sudden loss of consciousness.Etiology included only heart failure. in patient's blood tests hasn't got abnormal values, only CRP: 1.3 mg/dl and WBC: 18.34 10^3/ uLwas. On physical examination, there is no neck stiffness, breathing sounds are normal and skin color is natural. Vitals were also evaluated as normal except for high blood pressure (180/95 mmHg). In the echocardiography (ECO), ejection fraction was 60%, no valve movement limitation was detected. Imaging techniques were used because the physical examination was natural and there was no time and place orientation. Firstly, brain tomography was performed to exclude the diagnosis of brain hemorrhage (Figure 2). And then, diffusion MRI (dMRI) was performed to exclude the diagnosis of cerebrovascular disease (Figure 1). The patient's dMRI and brain tomography (CT) were normal. The patient was followed for a while in the emergency room.Toxicological markers and urine tests were studied and analyse result was normal.The patient was evaluated as normal by neurology and cardiology department consultations.The patient was followed up in the emergency room for 10 hours.There was no change in the patient's state of consciousness.Due to high blood pressure, CT and dMRI scans were repeated for subaracnoide blood (SAB) and hypertensive encephalopathy.The patient's CT scan was also normal, but it was determined that the patient had an infarction in the bacillary area on dMRI (Figure 3) The patient was consulted again to the neurology department, the patient was admitted to the intensive care unit and her treatment was started with the preliminary diagnosis of bacillary apex infarction.

Discussion

BTS is a CVD disease.The etiology includes many diseases of cardiac origin. In the literature, Ayas Z. et al. In a study he conducted, it was determined that the prevalence of underlying diseases was HT (64.5%), CAD (45.2%), DM

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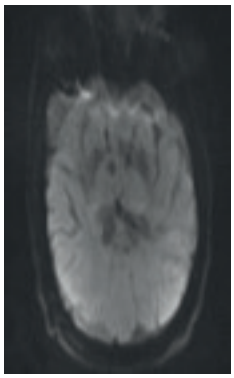

Figure 1. dMRI

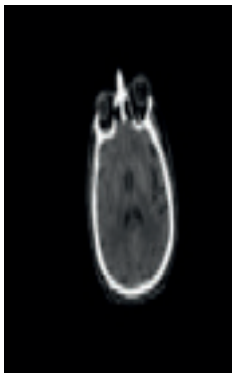

Figure 2. CT

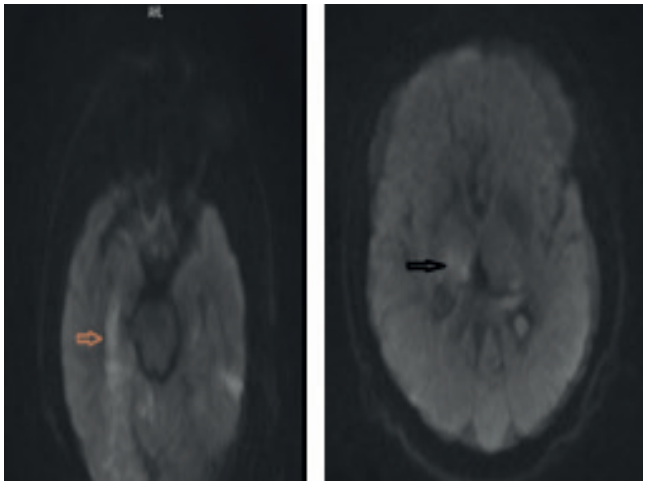

Figure 3. dMRI

(31.9%), CHF (9.7%), AF (6.5%) (3). AF is a 5-fold greater risk factor for ischemic stroke compared to the general population (4). The most common symptom seen in this study was a decrease in the level of consciousness (48.4%). Our patient had a decrease in the level of consciousness. In another study, Kıroğlu et al. reported that the most common symptoms of BTS were motor deficits (53.3%). Loss of consciousness (46.6%), visual/oculomotor symptoms (43.3%), cerebellar dysfunction (40.0%), behavioral disorder (26.6%) and speech disorder (16.6%) were detected (5).There was no sign of motor deficits in our the patient. Since BTS disease is fatal, deaths generally occur in middle ages, and our patient is over middle age, it was thought that BTS increases the death rate depending on age, but according to a study; it was observed that there was no significant difference between age, gender, presenting symptoms, premorbid diseases, infratentorial, supratentorial infarct volume and mortality (3).

Our patient is male and a lesion was seen at the thalamic level, which supports the study conducted by Martin et al.In BTS, extensive lesions involving the thalamus, cerebellum and midbrain are observed. The disease is observed more frequently in men than in women (6). The disease begins with confusion and hallucinations and progresses to death. The lack of clinical change in our patient despite treatment prevented the decision to discharge him. Discharge decisions should not be made by doctors without a clear assessment of the patient's well-being. Because under situations that we consider normal, fatally important diseases can occur, such as BTS. Make a treatment for BTS, which the old study said was 86% fatal, may be life-saving.

Conclusion

Clinicians should be vigilant in terms of BTS for this disease, which often results in death and whose initial symptoms are common in emergency situations and do not suggest serious disease. Identifying even one patient is vitally important.

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