Case Report

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Pseudoulnar Palsy Due to Ischemic Stroke; Case Report

Şeref Emre Atiş[1], Öner Bozan[2*] , Bora Çekmen[3]

[1] Mersin City Training Research Hospital, Department of Emergency Medicine, Mersin, TURKEY

[2] Prof. Dr. Cemil Tascioğlu City Hospital, Department of Emergency Medicine, Istanbul, TURKEY

[3] Karabuk University Faculty of Medicine Department of Emergency Medicine, Karabuk, TURKEY

Abstract

Isolated motor nerve paresis can occur due to central nervous system lesions. This condition is extremely rare, they are often misdiagnosed as a peripheral nerve lesion. 83-year-old male, applied to our hospital with 4th and 5th digit weakness. Neuroimaging revealed cortical-subcortical diffusion restriction in the medial gyrus of the precentral gyrus. The patient was diagnosed as ischemic stroke. In this article, we presented a case of ischemic stroke that mimics ulnar nerve paresis and be easily overlooked.

Key words: Ulnar Nerve, Paresis, Stroke

Introduction

Isolated motor paresis due to central nervous system lesion was first described by Lhermitte and was reported as pseudoperiferal palsy[1]. These lesions may be ischemic stroke or brain tumors, abscesses and hemorragie[2-4]. These types of paresis, which are associated with ischemic stroke, are rare and often diagnosed as perfieric nerve paresis[5]. Hand motor area is located in the precentral sulcus. Any ischemic infarcts in this area can lead to isolated motor paresis[6]. In this article, we presented a case admitted to our hospital 4th and 5th digit weakness, was diagnosed ischemic stroke.

Case Report

83-year-old male complained sudden onset loss of strength his 4th and 5th finger, was admitted emergency service. He stated that this complaint developed two hours before the application. He denied any dizziness, loss of consciousness, speech disorder, gait disturbance or loss of balance. The patient has hypertension, ischemic heart disease and chronic myeloid leukemia had no history of chemotherapy or radiotherapy. He was using imatinib, ramipril, clopidogrel and trimetazidine for existing diseases. His arterial blood pressure was 130/70 mm Hg, body temperature was 36.4 Celcius, heart rate was 86 bpm, and oxygen saturation was 99%. On neurological examination, he was conscious, cooperative. The patient speech was normal and had normal cranial nerve examination but right hand's 4th 5th digit flexion, abduction and adduction motions were 3/5 muscle strength (Picture 1). There was no abnormality was detected in laboratory examinations, no pathology was found on computed brain tomography, whereas cortico-subcortical diffusion restriction was detected in the medial precentral gyrus in diffusion-weighted magnetic resonance imaging (Picture 2). No pathology was found in the bedside echocardiography, cervical spinal magnetic resonance imaging and electroneuromyography. He was admitted to the Neurology Service with the diagnosis of ischemic stroke.

Discussion

Pure motor monoparesis due to ischemic stroke is a rare condition[6]. Typically, monoparesis tend to worsen over time as they develop as a result of compression. If it is develope suddenly, it should be consider ischemic stroke[4]. Monoparesis due to ischemic stroke are mostly seen in the hand region[6-8]. In our case, a suddenly developing ischemic stroke affect patient's right hand. Representation of the hand in the motor cortex is in the precentral gyrus. Due to the node-like feature of this structure, the region is called precentral node[4]. In the literature, there were many ischemic strokes in the precentral node region caused monoparesis. Among these motor monoparesies, ulnar, radial and median motor paralysis are found separately[2,9-11]. Ulnar or radial motor monoparesis was more likely to occur[12,13]. Similar to that, ulnar motor paresis occurred after ischemic stroke in our case. Strokes in the medial parts of this region are mostly associated with ulnar paresis, and in the lateral part with radial paresis[14]. The lesion in our patient was in the medial part of region and ulnar

Corresponding Author: Öner Bozan **e-mail:** ??

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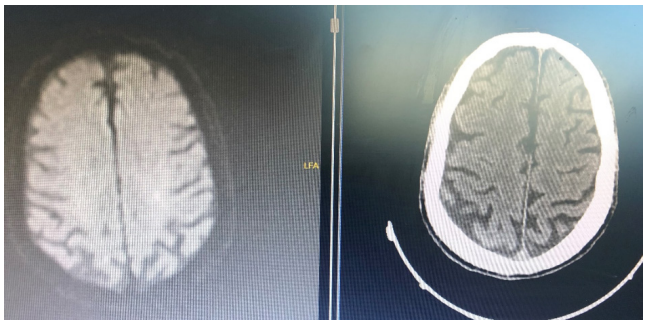
Picture 1



Picture 2

nerve involvement developed. In the etiology of ischemic stroke cases, patients with ulnar nerve paresis have been associated with hemodynamic reasons and those with radial nerve paresis have been associated with embolic causes[15]. In a case series Timsit et al. found that there were hemodynamic causes in the etiology of patients[16]. In our case, there was no etiological cause was found.

Conclusion

Diagnosis of ischemic stroke should be kept in mind in patients admitted to the hospital with sudden isolated nerve paresis and appropriate cranial imaging tests should be performed in the differential diagnosis.

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