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**Open Access** Case Report

# **Ischemic Stroke and Monoparesis**



### Sinan Eliacik\*

ÇorumHitit University Education Research Hospital, Turkey

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\*Corresponding author: Sinan Eliacik, CorumHitit University Education Research Hospital, Turkey

#### **Summary**

Monoparesia due to ischemic stroke is a rare clinical finding and can be confused with many monoparesis diseases. A 76-year-old hypertensive female who presented to our clinic with righthand weakness and slight loss of strength in the upper extremity was presented in the literature.

Abbreviations: HT: History of Hypertension; MRI: Cervical Magnetic Resonance Imaging; ENMG: Electroneuromyography; PMM: Pure Motor Monoparesis

## **Case Report**

Patients with history of hypertension (HT) applied to the outpatient clinic two days before sudden onset due to weakness in the left hand. The neurological examination of the patient with a blood pressure value of 200/110 showed a right wrist and finger dorsiflexion 3/5 proximal muscle strength of +4/5. Other neurological examination of the patient who was not able to describe pain was within normal limits. Physical therapy and brain nerve surgery in outpatient clinics, routine blood tests and cervical magnetic resonance imaging (MRI) abnormal findings were not detected in the patient's electrocardiogram was sinus rhythm.In electroneuromyography(ENMG) radial, median, ulnar nerve motor and sensory activity were evaluated as normal. Upper extremity muscles in needle ENMG examination ,extensor indicis proprius and supinator, no abnormal findings in dorso flexor muscles. MRG diffusion was planned because of high blood pressure. In the MRI, diffusion restriction was detected in favor of acute ischemia infarct in the left frontoparietal region. In the control examination of the patient without any significant findings of carotid vertebral ultrasound, hypertension was controlled and antiregan treatment was started.

## **Discussion**

Pure motor monoparesis (PMM) resulting from limited isolated motor deficits in single extremity without any sense defect due to cerebral processes is a rare condition seen as a result of demyelinating disease, abscess, brain tumor, hemorrhage and ischemic infarctions [1,2]. Isolated monoparesia, which develops following the stroke, is much less visible than other neurological clinical tables that develop due to stroke. Paciaroni and colleagues reported that the 2003 patient had PMM in 51 (2.5%) and that 39 (76.5%) of these cases had ischemic, 12 (23.5%) had hemorrhagic stroke. In 34 of these cases, upper extremity was detected and

lower extremity monoparesia was detected in 17 [3]. Ingvar et al 4802 in 195 (4.1%) in the upper 63% of these cases is PMM, the lower 15% was reported in only 22% is well isolated so paresis [4]. Hypertension was detected as a risk factor in 53% of the cases. Ingvar et al. found lesions in the middle cerebral artery in 59% of the 123 patients with PMM, subcortical in 26%, brainstem in 9%, and anterior cerebral artery irrigation in 2%[4]. In my case, the lesion was detected in the middle cerebral artery irrigation area. Takahashi et al. reported that lesions were present in the anterior wall of the presentral sulcus of 5 isolated monoparesia patients. In two of these cases, ulnar reported that weakness in ulnar region was dominant in one case in radial region and in the other two cases in different ways(Figure 1)[5].

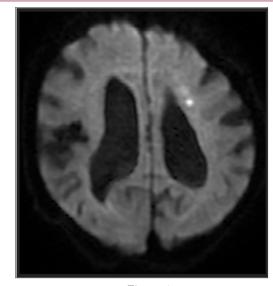


Figure 1.

Classically, the descending paresis is predominantly distal to the extremity, whereas the lesion may be proximal weakness such as isolated shoulder paresis according to the location [6]. It has been reported that the clear majority of monopares are due to ischemic lesions, but almost all are accompanied by vascular risk factors. Atrial fibrillation was identified as a risk factor in the isolated upper limb monoparesis patient reported by Öncel and colleagues [7]. In our case, HT was also present and antiagregan treatment was started. The patient was discharged with antiaggregant and antihypertensive treatment after a 10-day clinical follow-up. The prognosis of the isolo upper extremity paresis is good and the patients recover completely or close to the head [5,8]. In a case report presented by Gümüş and colleagues, as in the case of the patient, the ischemic area of diffuse MRI seen in peripheral clinicopathologic monoparesia etiology was shown [9].

In the first month of the clinical examination of my case, it was found that muscle strength was significantly improved and a faint parezie was still present in the upper extremity distal. Presence of risk factors in patients with pure motor monoparesia should remind us of the possibility of stroke in the etiology.

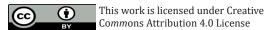
#### References

 Lee SH, Kim SK, Choi YC, Lee MS, Choi LS (1994) Two cases of cortical infarction presenting as pure motor monoplegia. J Korean Neurol Assoc 42: 789-795.

- S Timsit, M Logak, R Manai, G Rancurel (1997) Evolving isolated hand palsy: a parietal lobe syndrome associated with carotid artery disease. Brain 120: 2251-2257.
- Paciaroni M, Caso V, Milia P, Venti M, Silvestrelli G, et al. (2005) Isolated monoparesis following stroke. J Neurol Neurosurg Psychiatry 76: 805-807.
- 4. Maeder Ingvar M, Melle G, Bogousslavsky J (2005) Pure monoparesis: a particular stroke subgroup? Arch Neurol 6: 1221-1224.
- Takahashi N, Kawamura M, Araki S (2002) Isolated hand palsy due to cortical infarction: Localization of the motor hand area. Neurology 58: 1412-1414.
- Şenol MG, Kaplan C, Özdağ F, Saraçoğlu M (2008) Isolated shoulder paresis due to cortical infarction. Turkish Journal of Cerebrovascular Diseases 14(1): 21-23.
- Öncel Ç, Güler S, Can I, Virtual E (2008) An isolated case of isolated monoparegia. Turkey Clinics 3: 64-66.
- Sürmeli R, Yağız O, Tekeşin A, Taşkıran E (2010) Isolated hand weakness due to small cortical infarction: a case report. Istanbul Medical Journal 2: 89-91.
- Gümüş H, Yilmaz H, Yildirm G (2014) Cortical infarction-Isolated Isolated Hand Wrist Paralysis: Case Report. Turkish Brain Disease Journal 20(3): 120-122.

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