CASE REPORT

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Rehabilitation Outcomes of a Patient with HELLP Syndrome: Case Report

HELLP Sendromlu Bir Hastanın Rehabilitasyon Sonuçları: Olgu Sunumu

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ÖZ

Gebelikle ilişkili intrakranial lezyonlar nadir olarak görülmektedir ancak, mortalite oranı yüksektir. Olguların çoğu intrakranial kanama, intraserebral hemoraji, subaraknaoid kanama, infarkt ve venöz trombozdur. Geri kalanı ise preeklampsi ile ilişkili ensefalopatidir. Hellp sendromu; hemoliz, yükselmiş karaciğer enzimleri ve düşük plateletlerden ismini almıştır. HELLP sendromunun % 25'e varan mortalite oranı raporlanmıştır. Bu yazıda hemiparaziye neden olan HELLP sendromlu bir olgunun istenen rehabilitasyon sonuçları sunulmaktadır.

Anahtar Kelimeler: Gebelik, HELLP sendromu, paralizi, rehabilitasyon

ABSTRACT

Intracranial lesions associated with pregnancy are rare, but mortality rates are high. Most of the events are intracranial hemorrhage, intracerebral hemorrhage, subarachnoid hemorrhage, infarction and venous thrombosis. The remainder is encephalopathy associated with preeclampsia. HELLP syndrome is presented with hemolysis, elevated liver enzymes and low platelets. Mortality was reported up to 25 % in HELLP syndrome. In this paper we present desirable rehabilitation outcomes of hemiparesis caused by HELLP syndrome.

Key Words: HELLP syndrome, paralyse, pregnancy, rehabilitation

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INTRODUCTION

Pregnancy-related intracranial events are rare. Approximately half of these reported cases are intracerebral hemorrhage, subarachnoid hemorrhage, infarction and venous thrombosis. The other pathologies are encephalopathy related to preeclampsia and vascular conditions. Pregnancy-related vascular encephalopathies are classified as three groups: posterior reversible encephalopathy syndrome (PRES), HELLP (hemolysis-elevated liver enzymes-low platelets) syndrome and reversible cerebral vasoconstriction syndrome (RCVS). These syndromes are rare but early diagnosis is vital.[1]
In this report we present an example of HELLP case leading paresis in left extremities and demanding rehabilitation outcomes.

CASE REPORT

23 year old female patient applied to our inpatient clinic with complaining disability in her left extremities. The patient was questioned to determine the etiology of disability in her left extremities. It has been reported that she has gave birth with cesarian method because of Hellp Syndrome in the 34th week of pregnancy. She had also mentioned convulsion and loss of conscious and transferred to the intensive care unit and IVIG and plasmapheresis were done. During examination of patient sitting and standing balance were absent. She could not ambulate. Left upper extremity Brunstroom (BR) stage 4, hand BR stage 4, lower extremity BR stage 2 was assessed. Superficial and deep sense was normal. No spastisity was assessed. To examine the etiology of paresis patient was consulted with Neurology. Cranial Magnetic Resonance Imaging (MRI) and MRI angiography was performed (Figure 1-3).

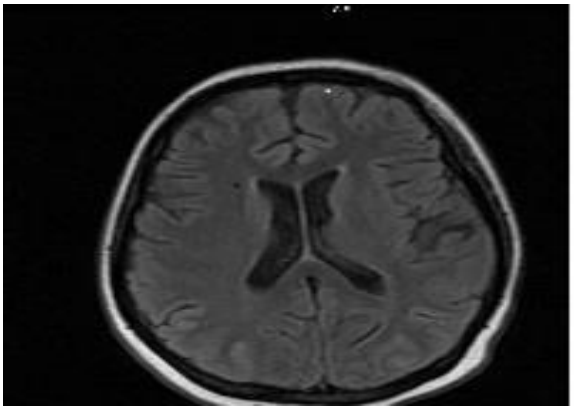

Figure 1. Normal MR imaging findings

Figure 2-3. Normal MR angiography findings

No abnormality was examined in radiology. The patient went on neurologic rehabilitation program including posture, respiratory, mat, balance-coordination and strength exercises. The Patient performed 25 seasons neurological rehabilitation. As a result of the rehabilitation program, the patient had a rapid recovery of paresis and the patient was observed to have independent ambulance. After three months, the patient was able to walk independently and was observed to recover well. Patient approval was taken.

DISCUSSION

HELLP syndrome was named the symptoms as follows: Hemolysis, Elevated Liver Enzymes and Low Platelets. HELLP syndrome is visible at %0.1 ratio in the third trimester of pregnancy. Symptoms include strong epigastralgia, hepatic failure, disseminated intravascular coagulation and intracerebral hemorrhage.[1,2]

The pathogenesis is not clear in this syndrome. It has been observed nitric oxide (NO) is a protective agent in many diseases especially in thrombosis.[3] NO has been shown to be effective in placental gene expression. And also it was reported endothelial NO synthases is significantly lower in patients with HELLP syndrome.[4] However, these conditions lead to placental dysfunction.

Mortality was reported up to 25 %. [5] A study investigated 54 maternal deaths associated with HELLP syndrome, cerebral hemorrhage was the leading cause of death in ratio of 45 %. It is followed by cardiopulmonary arrest (40%), disseminated intravascular coagulation (39%), adult respiratory distress syndrome (28%), sepsis (23%), hepatic hemorrhage (20%) and hypoxic ischemic encephalopathy (16%). [2] It was reported that 51% of deaths could be seen if early diagnosis could not be made. [4] In the present case the etiology of paresis was considered as edema in intracranial region and she was diagnosed early. And also there was no pathological MR finding that explain paresis.

A prospective cohort study of 442 cases with HELLP syndrome reported four cases of brain edema.[6] MR findings of HELLP syndrome can overlap PRES (posterior reversible encephalopathy syndrome).[7] PRES is described as a vasogenic subcortical edema without infarction.[8] Abnormal findings were reported in occipital and parietal lobes, but these findings were disappeared. Moreover, hypertension and raised blood pressure can accompany PRES. [1,8,9]

In addition to brain edema, brain stem, basal ganglia, thalamus and cerebral hemisphere can be involved in HELLP syndrome. Basal ganglia lesion in PRES was observed in ratio of 62 %. Besides, intracranial lesion[10] thrombotic microangiopathy in HELLP syndrome may also involve brain stem, basal ganglia and thalamus.[1] Groothius et al[11] reported a spinal cord injury case with hematomas on levels from C2 to T8. In this case spinal cord involvement was not observed.

In conclusion, present case had a promising outcome taking rehabilitation program. In this report, early diagnosis and appropriate treatment was suggested and no pathologic neurological finding was observed.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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