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A case study on left hemiparisis with acute infarct

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ABSTRACT

The term hemiplegia is related to something occurring on one half of the body either to the left or the right side. Hemiparesis is thus weakness on any half of the body. This can be explained in various ways like loss of motor control, inability to feel different side of the body, or can even be a general sensations of weakness. Hemiparesis is seen in almost 8 out of 10 stroke survivors. If a patient is having it, then the patient may have difficulty walking, standing, and maintaining balance and may also have numbness or tingling on weaker side. Hemiparesis can sometimes be confused with the term hemiplegia. Both of these conditions can occur after a stroke. Hemiplegia, however, is basically paralysis on any one part of the body where it becomes difficult to move the affected side at all and may lose bladder control too. The patient may face trouble while speaking, swallowing, and even breathing. Hemiparesis, on the other hand mainly involves weakness rather than paralysis. We present a case of 39 year old male patient from rural area who presented with a history of having falling down 8 days back and had a head injury, also complained about weakness –left sided giddiness. He was referred to tertiary care hospital and the patient was diagnosed with "Left Hemiparesis with Acute Infarct" and further treatment was given to the patient and his condition was improved at the time of discharge. With proper medications and lifestyle changes "Left hemiparesis with acute infract" can be managed. However as soon as patient receives the treatment, the chances of recovery increases. From this case study it can be concluded that the combination therapy of appropriate medications and lifestyle modifications can provide promising results in case of hemiparesis and thus can stop further deterioration to conditions like "Hemiplegia".

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INTRODUCTION

The term hemiplegia is related to something occurring on one half of the body either to the left or the right side. Hemiparesis is thus weakness on any half of the body. This can be explained in various ways like loss of motor control, inability to feel different side of the body, or can even be a general sensations of weakness Figure 1 [1].

Hemiparesis is seen in almost 8 out of 10 stroke survivors. If a patient is having it, then the patient may have difficulty walking, standing, and maintaining

balance and may also have numbness or tingling on weaker side [2].

Hemiparesis can sometimes be confused with the term hemiplegia. Both of these conditions can occur after a stroke. Hemiplegia, however, is basically paralysis on any one part of the body where it becomes difficult to move the affected side at all and may lose bladder control too [3]. The patient may face trouble while speaking, swallowing, and even breathing. Hemiparesis, on the other hand mainly involves weakness rather than paralysis [4].

Comparing right hemiparesis with left hemiparesis: From the name itself it can be understood, RH is basically weakness on right part of the body, while LH is weakness on left part of the body [5–8]. The reason for this weakness in one side of the body but not on the other side differs, but any sort of damage to the nervous system by various injuries, several infections, or degenerative conditions can lead to hemiparesis [9]. In case of degenerative conditions mainly multiple sclerosis or amyotrophic lateral sclerosis (ALS), hemiparesis may slowly lead to hemiplegia as time progress [10].

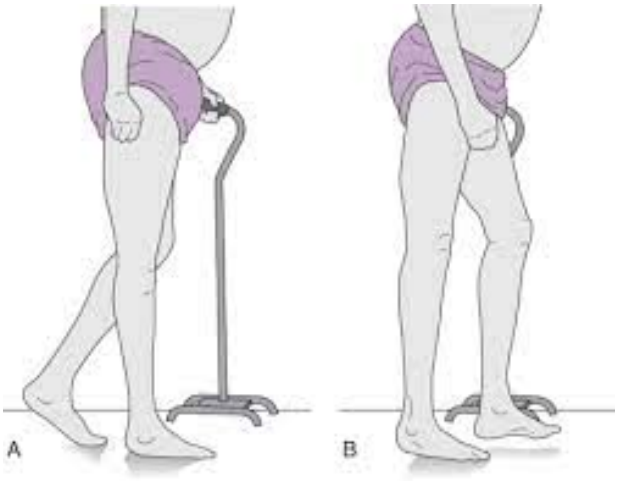

Figure 1: Left side hemiparesis

CASE PRESENTATION

39 year old male patient from rural area had a fall 8 days back and was admitted in MVJ Medical College and Research Hospital. The patient had a head injury, also complained about weakness –left sided giddiness. On physical examination it was found: P-I-C-C-L-E-, Plantar B/L Flexon, No Seizure, CVS S1,S2(+), RS-NVBS(+) & Slurring of Speech (+) (Tables 1 and 2).

On the day of admission the patient had complaints of weakness –left sided giddiness, however the patient being in a panic situation, had an elevated

Figure 2: CT-Scan report

blood pressure after immediate admission which subsided gradually. Due to the fall patient on physical examination was found to have slurred speech and thus had to go through a CT-SCAN and special diagnostic test (Figure 2). Based on all the examinations the condition was diagnosed as "*Left Hemiparisis with Acute Infarct*".

Various drug interactions were found and accordingly interventions were also provided (Table 3).

- Aspirin + Clopidogrel = Cause unusual bleeding, severe abdominal pain (monitor for GI bleeding)
- Atorvastatin+ Clopidogrel = chest pain, breathlessness, redness, swelling (monitor for altered efficiency of clopidogrel, use other statin like Lovastatin, Rosuvastatin)
- Atorvastatin+ Pantoprazole = increased blood level of atorvastatin, increased risk of myopathy (monitor for high levels of HMGCoA reductase inhibitors. Therapy should be discontinued if CK is elevated or if myopathy occurs)
- Clopidogrel+ Pantoprazole = decreased effectiveness of clopidogrel in preventing heart attack &stroke (monitor, substitute with H2 receptor antagonist if interaction occurs.

Post follow up the patient was found to recover mostly and was advised to take rest and was also provided with required counselling (Table 4).

DISCUSSION

People with hemiparesis generally face trouble and thus have issues while moving their arms and legs, and can also face difficulty in walking. The patient have a fair chance of experiencing loss of balance. Due to of this doing simple day to day activities can also be difficult which includes holding objects,

Table 1: The vitals were also measured on a daily basis

VITALS	Day 1	Day 2	Day 3	Day 4	Day 5
BP	180/100	120/80	120/80	120/80	120/80
RR	24	24	28	30	28
PULSE	90	86	90	88	88
TEMP	99.6	98.6	99.6	98.6	98.6

Table 2: The patient has also undergone various lab investigation

Test	Normal Values	
Hb%	12-18 gm/dl	14.5
P.C(Lakhs/Ml)	1.5-4.5 lakh/cumm	3
WBC	5000-11000cells/cumm	5000
Lymphocytes	20-50%	35
Polymorphs	40-75%	61
Eosinophills	1-6%	3
ESR	0-20 mm/hr	6
S.Urea	20-50 mg/dl	20
S.Creatinine	0.6-1.3 mg/dl	1.1
Uric Acid	3.5-5.2 mg/dl	4.6
Sodium	136-145meq/L	135
Pottasium	3.5-4.5meq/L	4.3
GRBS	70-140 mg/dl	74
FBS	70-110 mg/dl	89
PPBS	<140mg/dl	115

Table 3: The patient was started with the following medications and continued for 6 days

Tab clopit	Clopidogrel	75mg 0-1-0
Tab.Ecospirin AV	Aspirin + atorvastatin	75/10 mg 0-0-1
Inj.pan 40	Pantaprazole	1-0-0 40 mg
Tab. Strocit	Citicoline	1-0-1 500mg
Tab.Amlong	Amlodipine	1-0-0 5 mg
Neb duolin + budecort	Salbutamol+ ipratropium bromide+ budesonide	1-1-1-1

Table 4: The patient showed improvement after 6 days and was discharged with the required medications and a follow-up was done after a span of 2 weeks.

Medication	Dosing	Directions
T. Strocit plus	1-0-1,500 mg	Continue till two weeks
T. Amlong	1-0-0, 5 mg	Continue till two weeks
T. Pan-D	1-0-0, 40 mg	Continue till two weeks
T. Ecospirin gold	0-0-1	Continue till two weeks
Cap. Becosules	0-1-0	Continue till two weeks

dressing up, having food and even problems while using the bathroom. The loss of abilities that are mainly due to stroke depend on the area of the brain which is being damaged due to stroke. LH mainly causes injury to the right side of the brain, which controls several activities like how we learn and perceive, other non-verbal communication and also different types of behaviour. Damage to this part of the brain can also make people to talk excessively than normal, can also have memory issues and short attention spans. However, any damage caused to lower part of the brain can straight away affect the body's ability to coordinate movement which is called ataxia and can lead to problems with body's posture, walking and balance of the body.

CONCLUSION

This study shows that certain treatments can be helpful in relaxing the brain coordination which got affected due to injury which eventually lead to left sided hemiparesis. The reported case had immediate hospital admission followed by proper treatment and counselling and thus lead to the improvement of the condition. Proper treatment avoided further damages which are quite certain like hemiplegia.

LIST OF ALL ABBREVIATIONS

ALS: Amyotrophic lateral sclerosis

RH: Right Hemiparesis

LH: Left Hemiparesis

CT-Scan: Computed Tomography scan

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Conflict of Interest

The authors declare that they have no conflict of interest for this study.

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