

Case study on young stroke right ataxic hemiparesis with type 1 diabetes mellitus

Shaik Kulsumbi^{*1}, Syed Sabiha Sultana¹, Yalla Divya Chowdary¹, Hareesh Uppara², Pranathi R²

¹Department of Pharmacy Practice, Vishwa Bharathi College of Pharmaceutical Sciences, Perecherla, Guntur-522009, Andhra Pradesh, India

²Department of Pharmacology, Raghavendra Institute of Pharmaceutical Education and Research, Anantapur-515721, Andhra Pradesh, India



Article History:

Received on: 05 May 2020
Revised on: 10 Jun 2020
Accepted on: 24 Jun 2020
Published on: 05 Jul 2020

Volume: 8 Issue: 2

Keywords:

Young Stroke,
Right Ataxic
Hemiparesis,
Diabetes Mellitus,
AFP Guidelines

ABSTRACT

Etiology in nearly half of the cases can contribute to small-vessel disease. Sensory loss accurately predicts a capsular localization. Etiology in nearly half of the cases can be attributed to small-vessel disease. Furthermore, ataxic hemiparesis appears to be an important marker for generalized asymptomatic cerebrovascular disease. The treatment plan for patient included the prescription of drugs like Tab Ecosprin 150 mg OD, Tab Atacor 40 mg OD, Tab Flutop, Tab Cerecetam 800 mg, Tab Homani LS OD, Tab Pantop 40 mg OD, Human mixtard 30/70 25 units morning and 15 units bedtime which were completely abiding the guidelines as well as maintained the need for the betterment of patient's condition. For such critical medical condition, proper treatment is what can improve the patient's condition and add years to survival, and here, in this case, the same was implemented. This 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 in conditions like Ataxic hemiparesis. However, further, follow-ups are always necessary.

*Corresponding Author

Name: Shaik Kulsumbi

Phone: 9398830377

Email: kulsumshaik.vb@gmail.com

eISSN: 2321 4589

DOI: <https://doi.org/10.26452/ijprls.v8i2.1267>



Production and Hosted by

ScienZTech.org

© 2020 | All rights reserved.

INTRODUCTION

Ataxic hemiparesis is a distinct clinical syndrome which accurately predicts a small deep infarction, mainly in the pons or internal capsule [1]. However, sensory loss correctly predicts a capsular localization [2]. Etiology in nearly half of the cases can con-

tribute to small-vessel disease. Sensory loss accurately predicts a capsular localization. Etiology, in nearly half of the cases, can be attributed to small-vessel disease [3]. Furthermore, ataxic hemiparesis appears to be an important marker for the generalized asymptomatic cerebrovascular disease [4].

CASE PRESENTATION

A 13-year-old Female patient studying 8 Class from Rural area of Bapatla was admitted to the hospital on 14/11/2018 in the neurology department in tertiary care hospital in Guntur. She had Chief Complaints of right lower limb weakness, right Numbness, Right head injury, Paraesthesia (+), a case seen by the Neurologist. On examination at the time of admission the patient was found to be drowsy, arousal, following Commands, Pupils: NSRL, right hemiparesis, ataxia, right UL/ LL: 4/5, left UL/LL:

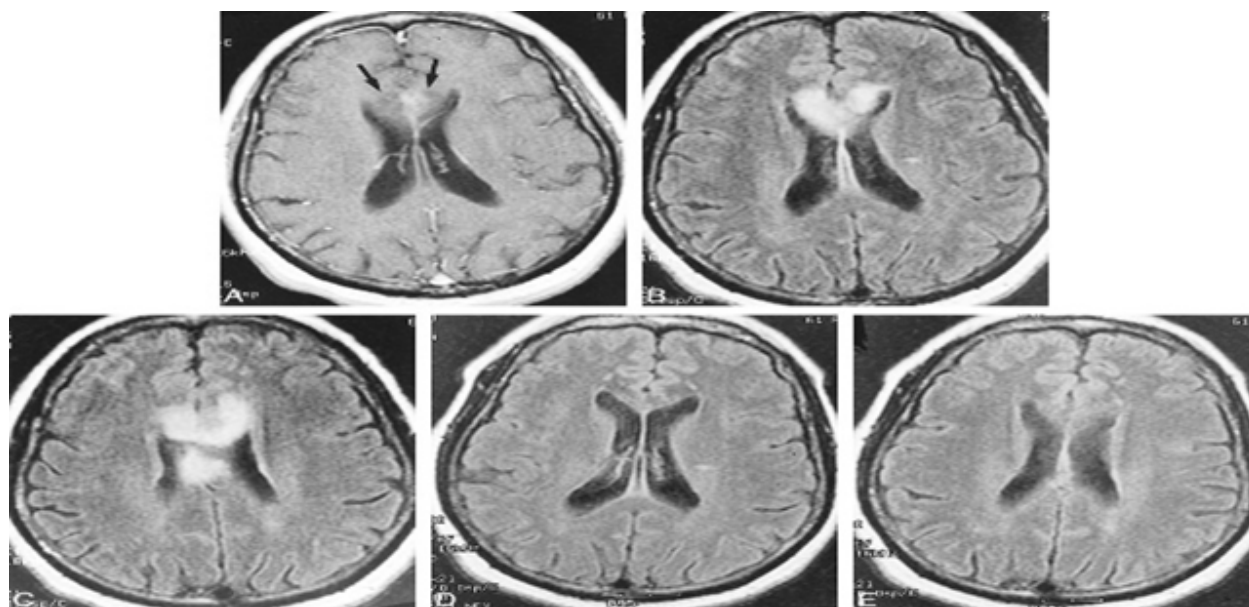


Figure 1: The MRI Scan

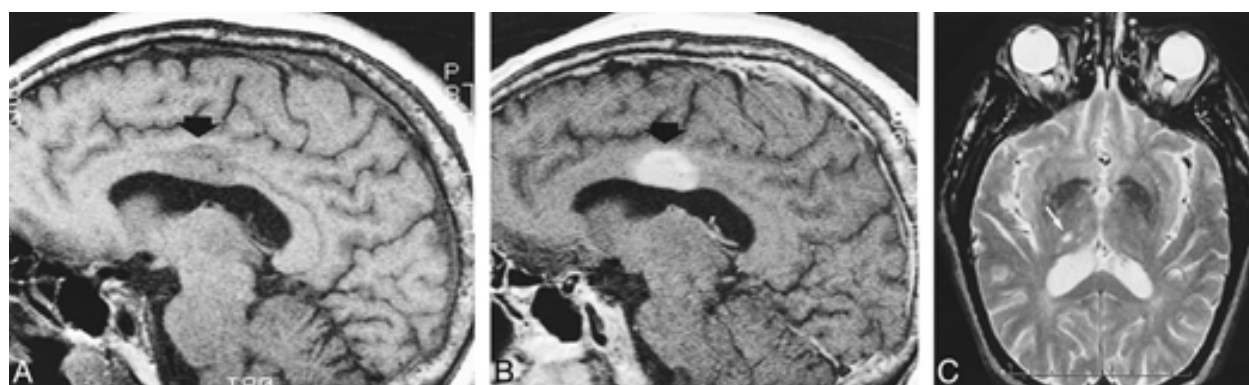


Figure 2: MRI Scan of Acute Infarct in Corpus Collasum

5/5.

Past Medical History: Patient had a significant past medical history of epilepsy three years back, and had Jaundice in 2016.

Past Surgery: The patient had undergone with right ear surgery due to infection

The patient was immunized up to age.

On day one, the patient had complaints of left lower limb weakness, and she had a history of head injury and decreased sensation. Laboratory investigations include the following reduced parameters: Hemoglobin 10.6 g/dl, Random blood sugar, PCV, MCV, ESR, cholesterol, Triglycerides, HDL, LDL as shown in the following Table 1 for which she was treated with following drugs: T. Disprin 325 mg OD, T. Atacor 80 mg OD, T. Defort 6 mg BD, T Rantac 150 mg BD, Inj. Maxnerve IV STAT OD, T, Homani LS OD, Inj. Cerecetam 15 ml IV BD, Human Mixtard 30/70 IU 25-0 - 15 Units BD as shown in Table 1.

Further investigations include MRI, which shows

acute infarct (restriction on DWI & ADC) in the anterior Corpus callosum, left frontal region and left frontal cortex, as shown in Figure 1. U/S scan of the whole abdomen and carotid Doppler was done, which showed normal study for carotid and vertebral arteries, as shown in Figure 2. The patient also underwent an examination of motor reflexes were found to be normal.

On day 2- 4 Days, the patients had the same complaints of left lower limb weakness, decreased sensation, and she had complaints of headache, left leg drop. The following laboratory parameter was increased and decreased including Postprandial blood sugar, fasting blood sugar, Creatinine, sodium, potassium, Bilirubin level, were given in the Table 2 for which the following drugs were given Inj. Mixtard 30/70 Units BD, Inj. Human Actrapid 12 Units BD, T. Fluconazole 150 mg OD, T. Fluctop 10 mg. MRA (Magnetic Resonance Angiography) was done, which shows no e/o focal stenosis/occlusions. The speech was found to be normal, and the patient's

Table 1: Laboratory Investigations: (Day 1)

S.No	Parameter	Observed value	Normal value
1	Haemoglobin	10.6 g/dl	11 – 16 g/dl
2	Random Blood sugar	324 mg/dl	80 - 140 mg/dl
3	PCV	34.1 %	42 – 52 %
4	MCH	25.6 millions/ cumm	28 - 32 millions / cumm
5	ESR	22 mm/ hr	1 – 20 mm/ hr
6	LDL	20 mg/dl	0 – 100 mg/ dl
7	Total cholesterol	126 mg/ dl	150 – 250 mg/ dl
8	HDL cholesterol	34 mg/dl	35 – 79.5 mg/dl

Table 2: Laboratory Investigations (Day 2)

S.No	Parameter	Observed value	Normal value
1	Postprandial blood sugar	288 mg/dl	100 – 180 mg/dl
2	Fasting blood sugar	98 mg / dl	70 – 110 mg/dl
3	Creatinine	0.7 mg/ dl	0.6 – 1.2 mg/dl
4	Sodium	135 mmol/ lit	134 – 144 mmol/ lit
5	Potassium	3.9 mmol/lit	3.5 – 5 mmol/ lit
6	Bilirubin	0.7 mg/dl	0.1 – 1.2 mg/dl
7	T3	0.68 ng/ ml	0.6 – 2.0 ng/ml
8	T4	10. 93 ug/dl	4.5 – 14.6 ug/dl
9	TSH	0.71uIU/ ml	0.3 – 5.5 UIU/ ml

Table 3: Medication chart

S.no	Medications	Dose	Frequency
1	T. Ecosprin	150 mg	OD once in the afternoon to be taken
2	T. Atacor	40 mg	OD one tablet in the night to be taken
3	T. Flutop	10 mg	BD advised to be taken one tab in the morning and one tab in the night
4	T. Cerecetum	800 mg	BD advised to be taken one tab in the morning and one tab at the night time
5	T. Homai		OD one tablet to be taken in the afternoon
6	T. Pantop	40 mg	OD one tab to be taken in the morning

motor reflexes were decreased on examination, as shown in Table 2 .

Day 5-8, She had shown improvement in her conditions. On undergoing physiotherapy classes, she is now able to stroll, and she was advised to follow the medication regimen regularly [5, 6].

After the improvement in the patient condition, she was advised for discharge from the hospital. The condition of the patient at the time of discharge includes: she was conscious, pupil NSRL, afebrile, sensorium normal, CVS S1+ S2 +, blood pressure: 130/ 90 mm/Hg, Lungs: B/L AE. The following medication was advised at the time of discharge. [7, 8]

The patient was also advised to stop using drugs if any reaction occurs and come for follow up after ten days for review [9, 10] .

Based on signs and symptoms, the patient was diagnosed with Young stroke- right ataxic hemiparesis with Type 1 – DM [11].

DISCUSSION

Ataxic hemiparesis is a distinct clinical syndrome which has to be treated in accordance with the stroke guidelines of the American Heart Association. In this case, the medications prescribed were in accordance

The treatment plan for patient included the prescription of drugs like Tab Ecosprin 150 mg OD, Tab Atacor 40 mg OD, Tab Flutop, Tab Cerecetam 800 mg, Tab Homani LS OD, Tab Pantop 40 mg OD, Human mixtard 30/70 25 units morning and 15 units bedtime which were completely abiding the guidelines as well as maintained the need for the betterment of patient's condition. For such critical medical condition, proper treatment is what can improve the patient's condition and add years to survival and here, in this case, the same was implemented, as shown in Table 3 [7].

CONCLUSION

This particular case shows that appropriate treatment can help relax the brain coordination, which was hampered due to the condition. This 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 in conditions like Ataxic hemiparesis. However, further, follow-ups are always necessary.

ACKNOWLEDGEMENT

The authors are thankful to all who have extended their constant support for the completion of the work.

CONFLICT OF INTEREST

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

FUNDING SUPPORT

The authors declare that they have no funding support for this study.

REFERENCES

- [1] Gorman MJ, Dafer R, Levine SR. Ataxic hemiparesis: Critical appraisal of a lacunar syndrome. *Stroke*. 1998;29(12):2549–55. Available from: <https://doi.org/10.1161/01.STR.29.12.2549>.
- [2] Huang CY, Lui FS. Ataxic-hemiparesis, localization and clinical features. *Stroke*. 1984;15:363–366. Available from: <https://doi.org/10.1161/01.STR.15.2.363>.
- [3] Arboix A, Marti-Vilalta JL, Garcia JH. Clinical study of 227 patients with lacunar infarcts. *Stroke*. 1990;21(6):842–7. Available from: <https://doi.org/10.1161/01.STR.21.6.842>.
- [4] Kikuchi S, Mochizuki H, Moriya A, Nakatani-Enomoto S, Nakamura K, Hanajima R, et al. Ataxic hemiparesis: Neurophysiological analysis by cerebellar transcranial magnetic stimulation. *Cerebellum*. 2012;11(1):259–63. Available from: <https://doi.org/10.1007/s12311-011-0303-0>.
- [5] Siddique MAN, Nur Z, Mahbub MS, Alam MB, Miah MT. Clinical presentation and epidemiology of stroke - A study of 100 cases. *Journal of Medicine*. 2009;10(2):86–89.
- [6] Sahu R, Patil TB, Kori P, Shukla R. Isolated thalamic tuberculoma presenting as ataxic hemiparesis. *Case Reports*. 2013;2013(apr10 1):bcr2013009100–bcr2013009100. Available from: [10.1136/bcr-2013-009100](https://doi.org/10.1136/bcr-2013-009100).
- [7] Fisher CM. Ataxic Hemiparesis: A Pathologic Study. *Archives of Neurology*. 1978;35(3):126–128.
- [8] Jokelainen M, Pilke A. Ataxic Hemiparesis. *Archives of Neurology*. 1983;40(5):326–326. Available from: [10.1001/archneur.1983.04050050094020](https://doi.org/10.1001/archneur.1983.04050050094020).
- [9] Hiraga A. Ataxic hemiparesis. *Handbook of the Cerebellum and Cerebellar Disorders*. 2013;.
- [10] Chamorro A, Sacco RL, Mohr JP, Foulkes MA, Kase CS, Tatemichi TK, et al. Clinical-computed tomographic correlations of lacunar infarction in the stroke data bank. *Stroke*. 1991;22(2):175–81. Available from: <https://doi.org/10.1161/01.STR.22.2.175>.
- [11] Dobato JL, Villanueva JA, Giménez-Roldán S. Ataxic Hemiparesis, Critical Appraisal of a Lacunar Syndrome. *Stroke*. 1998;29:2549–2555. Available from: <https://doi.org/10.1161/01.STR.21.12.1749>.

ABOUT AUTHORS



Shaik Kulsumbi

Department of Pharmacy Practice, Vishwa Bharathi College of Pharmaceutical Sciences, Perecherla, Guntur, 522009, Andhra Pradesh, India. 9398830377

Copyright: This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

Cite this article: Kulsumbi Shaik, Sabiha Sultana Syed, Divya Chowdary Yalla, Uppara Hareesh, Pranathi R. **Case study**

on young stroke right ataxic hemiparesis with type 1 diabetes mellitus. Int. J Pharm. Res. Life Sci. 2020; 8(2): 40-44.

ScienZTech

© 2020 ScienzTech.org.