

Understanding Chronic Lacunar Infarction: A Case Study on Diagnosis, Management, and Nursing Care

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Abstract: A chronic lacunar infarction is an old, small lacune in the brain's deep white matter. This paper presents a case study focusing on the clinical manifestation, Diagnosis, management and nursing care of 52-year women with Chronic lacunar infarction. Chronic lacunar infarction often in chronic hypertension and diabetes. Diagnosis often involves imaging techniques. Management option ranges from medical intervention. Nursing care focus on physical therapy, strict management of blood pressure, modification of lifestyle changes, and emotional support to prevent further damage.

Keywords: lacunar, infarction, stroke, hypertension

1. Introduction

Achronic lacunar infarction is a type of ischemic stroke, but it is very small 2-15mm. It happens in deep brain areas from blockage of a single, tiny artery. It resulting from a blocked tiny penetrating artery, usually due to long-term hypertension, or diabetes, causing permanent tissue damage.

Causes:

- Cerebral small vessel disease
- High cholesterol
- Smoking
- Sleep apnea

Diagnosis:

- Physical exam
- X-ray
- MRI
- CT scan

Complications

- Dementia
- Limited mobility
- Paralysis

2. Case study of Mrs. x

A 52 yrs old female patient was admitted in the hospital with the complaints of weakness and numbness and coordination issues in the body's left side. After a detailed investigations and Imaging techniques she was diagnosed as chronic lacunar infarction. She was found to be conscious and oriented.

Her vital signs as follows:

- Temperature :98.6°F
- Pulse: 82beats/min
- Respiration: 22breath/min
- Blood pressure: 1600/90mmHg

2.1 Investigations

- The CT scan report was received.
- Sub acute infarct noted in right frontal centrum semiovale.
- Chronic lacunar infarct noted in the right half of upper pons

2.2 Lab reports

- Hemoglobin:13gm/dl
- Platelet count: 2.42 lakhs/cumm

2.3 Signs and Symptoms

Book Picture	Patient Picture
Back pain	Present
Stiffness	Absent
Numbness on one side	Present
Slurred speech	Present
Muscle Weakness	Present
Clumsiness	Present

2.4 Management

- Aggressive control of blood pressure, cholesterol, blood sugar.
- Life style changes
- Thrombolytic therapy
- Clopigogrel.
- Musclke relaxants: Baclofen, Tizanidine
- physical therapy.
- Physiotherapy can be an effective treatment.

2.5 Complications

- Dementia
- Cognitive decline

2.6 Patient education

- Educate about aerobic and muscle strengthening exercises.
- Educate about practicing proper body mechanics.
- Diet
- Occupational therapy

2.7 Nursing Diagnosis

- Impaired verbal communication realted to slurred speech.
- Impaired physical mobility related to weakness as evidenced by verbalization.
- Self-care deficit related to reduced mobility.
- Disturbed sleep pattern related to emotional stress.

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- Knowledge deficit related to the treatment option and potential outcome.

3. Conclusion

Chronic lacunar infarction happens when a blood clot blocks a blood vessel deep in your brain. However, there are various treatment process reduce the symptom and improve the patient's quality of life. This case study highlights the signs and symptoms, diagnosis, Investigations, Management, complications and nursing care of 52 years old women with chronic lumbar infarction.

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