DocCrew Medical Center

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Medical Report

Patient Information

Name: This information is classified
Age: 16 years
Sex: Female
Patient ID: This information is classified
Date of Report: Tuesday 20th May, 2025

Prepared by: Dr. Yahya Ghallali
License SDIA

1. Medical History

The patient has a history of well-controlled epilepsy, managed with levetiracetam 500mg twice daily. Her maternal family history includes migraines.

2. Clinical Presentation

The patient experienced an approximately 30-second episode of apnea, characterized by unresponsiveness. Post-apnea, she exhibited confusion, tiredness, and a mild headache. Her mother reported a low-grade fever of 38.2°C (100.8°F) at home. During the apneic episode, the patient appeared stiff.

3. Physical Examination

On examination, the patient appeared tired but was alert and oriented to person and place (though disoriented to date). Cranial nerves II-XII were intact. Motor strength was 5/5 bilaterally in all extremities, with normal tone and 2+ symmetric reflexes. Deep tendon reflexes were symmetric and 2+. Sensory examination was grossly normal. Cerebellar function was intact. Lung sounds were clear bilaterally, and meningeal signs were absent. Cognitive function testing was limited by the patient's confusion, but she was able to follow simple commands.

4. Additional Examinations

Vital signs were: temperature 38.2°C, heart rate 90 bpm, respiratory rate 18 breaths/min, blood pressure 110/70 mmHg, and SpO2 98% on room air. Point-of-care glucose was 90 mg/dL. Levetiracetam levels were within the therapeutic range (confirmed via pharmacy records). **Highlight:** Obtaining the patient's weight is critical for accurate medication dosing and overall clinical assessment. Weight: This information is missing.

5. Diagnosis and Treatment

A definitive diagnosis is pending further investigation, specifically the results of a lumbar puncture. Differential diagnoses include seizure (potentially complicated by meningitis or encephalitis), meningitis, encephalitis, metabolic encephalopathy, and toxic encephalopathy. A focal lesion is considered less likely given the absence of focal neurological deficits beyond mild confusion, though further investigation is warranted to confirm this. However, the possibility of a focal lesion cannot be definitively excluded.

The initiation of empiric treatment for bacterial meningitis and encephalitis prior to lumbar puncture results is based on the clinical presentation suggesting a high probability of serious bacterial infection, given the combination of fever, altered mental status, and post-ictal symptoms. The risk of delayed treatment outweighs the potential risks of antibiotics and antivirals. Further justification includes the patient's age and the rapid progression of symptoms. The absence of the patient's weight is a significant limitation, particularly for accurate Vancomycin dosing.

Treatment includes a lumbar puncture to rule out meningitis or encephalitis. Empiric treatment for bacterial meningitis (pending lumbar puncture results) has been initiated with Ceftriaxone 2 grams IV every 12 hours, Vancomycin 15mg/kg IV every 8-12 hours (target trough level 15-20 mcg/mL) - dosage adjusted upon obtaining patient weight, and Acyclovir 10mg/kg IV every 8 hours - dosage adjusted upon obtaining patient weight. The patient is under close monitoring for ongoing seizure activity or respiratory compromise. No adjustment to the current levetiracetam regimen is indicated at this time.

Highlight: The pending lumbar puncture results and the patient's weight are crucial for definitive diagnosis and appropriate adjustment of treatment. The empiric antibiotic and antiviral therapy is based on the high clinical suspicion of meningitis or encephalitis, considering the risk-benefit analysis given the potential severity of untreated disease. **Highlight:** The potential for adverse effects from broad-spectrum antibiotics and antivirals is acknowledged. The decision to commence empiric treatment is considered a necessary risk-mitigation strategy.

Signature: _____

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