

Mark as done

Level Learning Objectives

Cognitive Domain:

1. **Analyze:** Evaluate the underlying systemic conditions that can lead to bilateral pitting pedal edema (e.g., cardiac, hepatic, renal causes).
2. **Evaluate:** Correlate clinical findings with the most likely differential diagnoses and prioritize the order of investigations and management.
3. **Create:** Formulate an evidence-based management plan for a patient presenting with bilateral pitting pedal edema, considering the clinical context and potential underlying causes.

Psychomotor Domain:

1. **Examine:** Perform a detailed physical examination, specifically focusing on identifying pitting pedal edema, inspecting for associated signs of systemic disease, and assessing venous and arterial circulation.
2. **Perform:** Conduct relevant clinical tests, such as assessing jugular venous pressure (JVP), performing abdominal and cardiovascular examinations, and auscultating for abnormal breath sounds.

Affective Domain:

1. **Respond:** Demonstrate empathetic patient communication, ensuring the patient is comfortable during the examination and reassured about the clinical findings.
2. **Value:** Respect the patient's concerns about the cause and potential implications of bilateral edema, ensuring clear communication regarding the next steps in the diagnostic and therapeutic process.

✦✦ Summarise

OSCE Station: Bilateral Pitting Pedal Edema

Station Title:

Clinical Examination of a Patient with Bilateral Pitting Pedal Edema

Higher-Level Learning Objectives (Based on Bloom's Taxonomy):

Cognitive Domain:

- - Analyze: Evaluate the underlying systemic conditions that can lead to bilateral pitting pedal edema (e.g., cardiac, hepatic, renal causes).
- - Evaluate: Correlate clinical findings with the most likely differential diagnoses and prioritize the order of investigations and management.
- - Create: Formulate an evidence-based management plan for a patient presenting with bilateral pitting pedal edema, considering the clinical context and potential underlying causes.

Psychomotor Domain:

- - Examine: Perform a detailed physical examination, specifically focusing on identifying pitting pedal edema, inspecting for associated signs of systemic disease, and assessing venous and arterial circulation.
- - Perform: Conduct relevant clinical tests, such as assessing jugular venous pressure (JVP), performing abdominal and cardiovascular examinations, and auscultating for abnormal breath sounds.

Affective Domain:

- - Respond: Demonstrate empathetic patient communication, ensuring the patient is comfortable during the examination and reassured about the clinical findings.
- - Value: Respect the patient's concerns about the cause and potential implications of bilateral edema, ensuring clear communication regarding the next steps in the diagnostic and therapeutic process.

Station Duration:

5-8 minutes

Case Scenario for the Student:

You are a final-year medical student in the general medical ward. A 60-year-old female patient presents with bilateral swelling of the legs, which has been gradually worsening over the past three months. She also reports shortness of breath on exertion. Perform a focused clinical examination to assess the bilateral pitting pedal edema and formulate a differential diagnosis.

Instructions for the Student:

- Perform a detailed examination of the lower limbs, focusing on identifying the grade of pitting edema.
- Inspect for signs of systemic illness, including cardiovascular, hepatic, and renal causes.
- Evaluate the patient's general condition, noting any signs of heart failure, liver disease, or nephrotic syndrome.
- You have 5 minutes to complete the examination and 3 minutes to present your findings, suggest potential diagnoses, and recommend investigations.

Examiner Guidelines and Marking Schema:

1. General Inspection

- - Proper hand hygiene and patient introduction (1 mark)
- - Inspect the lower limbs for the presence and extent of edema (2 marks)
- - Check for symmetry of edema and assess grading (mild, moderate, severe) (2 marks)
- - Look for skin changes (e.g., stasis dermatitis, ulceration) (1 mark)

2. Cardiovascular Examination

- - Assess jugular venous pressure (JVP) (2 marks)
- - Auscultate for abnormal heart sounds (S3 or murmurs) (2 marks)
- - Palpate for hepatojugular reflux (2 marks)
- - Check for peripheral pulses (1 mark)

3. Respiratory Examination

- - Auscultate lungs for crackles (suggestive of heart failure) (2 marks)
- - Observe for signs of respiratory distress or orthopnea (1 mark)

4. Abdominal Examination

- - Palpate for hepatomegaly (suggestive of congestive hepatopathy) (2 marks)
- - Check for ascites (shifting dullness or fluid thrill) (2 marks)

5. Other Relevant Examinations

- - Look for sacral edema (1 mark)
- - Inspect for signs of protein loss (e.g., periorbital edema in nephrotic syndrome) (1 mark)
- - Assess for varicose veins or venous stasis (1 mark)

6. Differential Diagnosis

- - Cardiac causes: Congestive heart failure (2 marks)
- - Hepatic causes: Liver cirrhosis, chronic liver disease (2 marks)
- - Renal causes: Nephrotic syndrome, chronic kidney disease (2 marks)
- - Other causes: Chronic venous insufficiency, medications (1 mark)

7. Suggested Investigations

- - Serum albumin and electrolytes (1 mark)
- - Chest X-ray (1 mark)
- - ECG (1 mark)
- - Echocardiogram (1 mark)
- - Urine dipstick for proteinuria (1 mark)

8. Communication Skills

- - Summarizes findings clearly (2 marks)
- - Explains further management and investigation plan to the patient (2 marks)
- - Professional demeanor and patient interaction (1 mark)

Total Marks:

25

Examiner Notes:

The student should be able to differentiate between various causes of edema based on clinical examination findings. The focus should be on a systematic approach to investigating both cardiovascular and systemic causes of edema. Effective communication with the patient is critical, especially when discussing the importance of further diagnostic tests.

Patient Script (Simulated Patient Role):

The patient presents with bilateral swelling of the legs, moderate in severity. They also report some difficulty in breathing when lying flat (orthopnea). If asked, the patient mentions that they have noticed some abdominal swelling and have a history of heart problems. The patient is generally cooperative but slightly anxious about the findings.