

Pain Mechanisms

Activities

Activity 1: Case study of Mr. C.

Ask students to review the case materials and view the video segment before answering the discussion questions. This activity can be used either as an in-class exercise, or as a homework assignment.

Mr. C:

Mr. C. is an 80-year-old retired welder with a 10th grade education. He is widowed and has lived with his daughter and son-in-law for the past 9 months. Mr. C. was healthy until diagnosed with stage four adenocarcinoma of the right apex of the lung one-year prior to the videotape. He received radiation therapy for four weeks. Prior to the videotape, Mr. C's pain was rated as discomforting. He describes his pain as flickering, flashing, sharp, cramping, hot, itchy, tiring, exhausting, suffocating, fearful, blinding, miserable, cold, freezing, and nauseating. This pain is continuous in nature but is exacerbated with particular movements and positions.

Discussion Questions:

- 1. Mr. C reports pain radiating down his right arm in the C6-C7 spinal dermatomes. It feels flickering, flashing, sharp, hot, freezing.
 - What might be the etiology (cause) of this pain?
 - Is this pain most likely to be nociceptive or neuropathic pain?
- 2. Mr. C reports pain localized in the middle of his back in the L3-L4 area.
 - What might be the etiology (cause) of this pain?
 - Is this pain most likely to be nociceptive or neuropathic pain?

Instructor Note: His pain is typical of brachial plexopathy-related pain caused by the tumor in the right upper lobe of the lung pressing against or invading the brachial plexus (pancoast syndrome). Neuropathic, because nerve tissue is damaged by tumor compression. His pain is typical of bone metastases to the vertebral bodies. The nurse should report the pain report and suggest that the patient's physician or nurse practitioner consider diagnostic scans to determine if there are bone metastases in the area and to rule out potential spinal cord compression, an oncologic emergency. His pain most likely is nociceptive because somatic (bone) tissue is damaged by tumor invasion.