Educational Objectives:

1. Define chronic pain and learn how to assess its severity and impact on quality of life
2. Establish realistic analgesic goals based on clearly defined functional objectives
3. Implement multi-modal analgesia to manage pain without overreliance on opioid therapy

CASE ONE:

Mr. A is a 55-year-old man with chronic low back and neck pain secondary to known degenerative disk disease who now presents to you for evaluation of worsened pain related to a motor vehicle accident (MVA). He reports that he was in his usual state of health until about six weeks prior when he suffered whiplash after being hit from behind by another vehicle. He was a restrained passenger sitting in the front passenger seat at the time of the incident. The accident was at relatively low speed, the airbags did not deploy, and there was minimal damage to either vehicle. However, immediately after the accident, his neck, shoulders, and upper back felt much sorer and stiffer than usual. Out of an abundance of caution, EMS stabilized his neck and transferred him to the emergency room for further evaluation. In the emergency room, he had x-ray imaging of his neck and upper back which showed chronic degenerative changes of the cervical spine, but no acute pathology. He was diagnosed with acute traumatic muscle strain. At the suggestion of the ER team, he has started physical therapy and has been taking acetaminophen 1,000 mg three times a day. He has also been using as needed ibuprofen 600 mg up to three times a day, although he has used it irregularly. The pain is still present, and he is worried that it may never resolve. He rates his current pain as a 7 on a 10-point severity scale. He says his baseline neck and back pain are typically a 2-3 on the same scale.

Questions:

1. Is this patient suffering from acute or chronic pain? How do these two syndromes differ mechanistically?

2. How common is chronic pain in America?
3. Are unidimensional pain severity scales appropriate to assess our patient’s subacute pain? Should the approach be different if the pain is chronic?

4. How does a lack of trust in the patient-provider relationship impact the assessment of pain? What strategies can be used to overcome this barrier?

CASE ONE CONTINUED:

You provide reassurance to the patient that you believe his pain symptoms and expect they will improve with time. However, his pain is still quite severe and interferes with his ability to sleep and use the computer for more than an hour straight at work. He is frustrated that his current treatment plan is not more effective and asks if you could give him “something stronger” to take the pain away.

On examination, the range of motion of his neck is limited due to pain and voluntary resistance to movement. There is clear paracervical muscle spasm but no vertebral body tenderness. A Spurling’s test is equivocal, but motor and sensory examinations are otherwise normal along with the rest of the physical exam.

5. Is achieving a pain-free state a reasonable treatment goal?

6. What would be an appropriate next step in the analgesic treatment plan?
Three months later, he returns to your office for evaluation of ongoing neck pain now radiating into the lateral aspect of his left arm, forearm, and hand. He also describes a sense of numbness and burning discomfort into his left forearm and hand, worsened by neck movement and graded as moderately severe (6/10). He says that these symptoms are different than the soreness and spasm he previously felt after the car accident.

On physical examination, he appears to be in mild discomfort. He now has a positive Spurling’s sign on the left along with vague numbness over his neck, shoulder, scapula, lateral arm, lateral forearm, and lateral hand. Motor testing is normal, but he has very mild hyperreflexia of his biceps and brachioradialis muscles on the left. Lhermitte phenomenon (shock-like paresthesia with neck flexion suggestive of cervical cord compression) is absent on neck flexion. Based on the history and physical exam, you diagnose him with presumed cervical radiculopathy affecting the C6/C7 nerve level. Because of his known history of cervical disk disease, his history of trauma, the progression and severity of his symptoms despite conservative therapy, and the mild hyperreflexia on exam, you also order an MRI which confirms disk herniation and spinal nerve root compression at the C6/C7 spinal level.

He tells you that he is not interested in seeing an orthopedist or neurosurgeon and does not want to have any procedures (e.g., epidural steroid injection, surgery). Instead, he prefers to manage his symptoms medically if possible. Because there are no danger signs present on exam (e.g., Lhermitte phenomenon or overt evidence of myelopathy), you agree to this approach but caution him that if he develops weakness of the arm, trouble walking, or other new neurologic symptoms, he may need to see a spinal surgeon.

7. What is the general approach to treating chronic pain other than just using analgesic medications?

8. What additional pharmacotherapy should be considered to manage his symptoms?

9. Should you refer him to a pain specialist?
Primary References:


Additional References:


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**Knowledge Questions:**

1. You are evaluating a 60-year-old patient with a PMHx notable for cardiovascular disease, for acute shoulder pain following a fall. Based on the history and physical exam, you diagnose a muscle sprain. Which of the following treatment options is most appropriate?

   a. Diclofenac 1% gel applied topically to the affected area three to four times a day  
   b. Diclofenac 50 mg taken orally three times a day  
   c. Amitriptyline 25 mg taken orally at bedtime  
   d. Oxycodone 10 mg taken orally every six hours if needed

2. You are caring for a 42-year-old woman with a history of chronic knee pain related to osteoarthritis. She also has a history of generalized anxiety and major depression but is not currently on pharmacotherapy. To best manage both her chronic pain and her psychiatric symptoms, which of the following treatment options is the best choice?

   a. Sertraline 50 mg taken orally each day  
   b. Mirtazapine 15 mg taken orally before bedtime  
   c. Duloxetine tapered up to a dose of 60 mg taken orally once a day  
   d. Phenelzine taken orally at a dose of 15 mg three times a day

3. You are evaluating a 60-year-old man with chronic painful diabetic neuropathy. Prior to the start of his current pain regimen ( gabapentin and low dose nortriptyline), he had a PEG score of 7. He now reports a PEG score of 5 and isn’t happy with his degree of pain control. Which of the following would be an appropriate analgesic treatment target?

   a. Treat to a target of being pain-free  
   b. Treat to a target PEG score of 4 or less  
   c. Identify a specific functional goal such as going on a short walk three times a week within the next month.  
   d. The PEG score is improving, so he is already at his treatment target