Mini-Case Studies

Case Study #1 (Kolski p. 175-176)[1]
35-year-old male presents with pain in his right posterior lateral lower leg (during activity). He describes the pain as numbness, tingling, and deep pain; 4/10 at worst with activity. The pain started 12 weeks ago when he sprained his ankle (inversion). The pain started in the ankle but has spread up to the lower leg over the past 3 weeks. The pain is usually the worst at the end of the day but is better in the morning. The following activities aggravate his pain: prolonged use of his ankle, sitting, initial walking, attempted running, descending stairs. His pain is relieved with use of a heating pad, stretching his calf during running, and frequently changing position. The patient has a history of ankle sprains in both ankles but this one "feels different", with symptoms persisting longer than normal. Two weeks ago, he tried running ago but stopped because it was too painful. He occasionally uses ibuprofen, but it doesn't provide much relief. The patient works on his feet all day, but the pain has made this difficult and has prevented him from playing any sports in the past 3-months. He is concerned about his pain is lasting longer than previous ankle sprains, which has affected his ability to run and play sports.

Driving pain mechanism?
Peripheral Neurogenic

Supporting evidence?

Pain is ~S1/fibular nerve pattern
Pain descriptors (numbness, tingling)
Past "normal" tissue healing window for soft tissues in ankle
Aggravated with prolonged activity
Relieved by heat and movement (stretching calf)
Not relieved by ibuprofen

Other biopsychosocial factors to consider?

Works on his feet all day, making it difficult to "rest" LE
Pain starting to persist into "chronic" pain territory

<u>Case Study #2</u> (Kolski p. 87-88)[1]
31-year-old male presents with R shoulder and chest pain. He describes the pain as "stiffness" with occasional "cracks" and sharp pain with movement. The pain started 1 week ago when he stepped off a curb and grabbed a sign pole to prevent from falling. His pain is worse in the morning, gets better as the day progresses and then gets worse again in the evening. He rates his pain as 3/10 at best and 8/10 at worst. His pain gets worse when he lifts his arm and holds objects for a long period of time. It gets better when he doesn't movement or does gentle movements, and when he uses ice and ibuprofen. He has no relevant PMHx or family history accept for a ACL rupture and reconstruction 10 years ago. This patient is a 5th grade teacher and works out 3-4 times per week, although he has had to modify his workout routine because fears he will make his shoulder pain worse. He is concerned about why he is not better and is asking if he should get an x-ray of his shoulder.

Driving pain mechanism?
Nociception

Supporting evidence?

Acute onset (1 week)
No neurological descriptors
Diurnal pattern of pain (worse in AM, better in afternoon, worse in PM)
Predictable aggs/eases
Responds to ibuprofen + rest
Few PMHx or psychosocial factors

Other biopsychosocial factors to consider?

Has an active job, which may make it hard to "rest" shoulder
Some fear over pain not getting better/maybe needing imaging

Case Study #3 (Kolski p. 232-233)[1]

47-year-old male presents to the clinic with constant anterior trunk pain, low back pain, and right posterior hip and thigh pain. He describes the pain as sharp, dull, burning, pinching, numbness, tingling, and sometimes "exploding" in his chest. The pain started about a year ago when he was lifting his child into a car seat. A sharp pain immediately went down from his back into his leg. The pain has persisted since then but has recently gotten worse. The pain is better during the day but worse at night, waking him up 2-4x/night. He rates his pain as 8/10 at best and 10/10 at worst. The activities that aggravate his pain include any movement of his trunk or left leg and it is especially bad when he feels stressed from his job or family. The things that make his pain better include lying down, laying in a warm whirlpool, and walking in the pool BUT this never makes his pain fully go away. The patient reports he has tried a lot of PT in the past and has "tried it all" but "nothing works." He has PMHx of depression and anxiety (which pre-dated his back injury but has gotten worse since). As a part of previous treatments, he has had PT, multiple injection, and an L4/5 laminectomy 6 months ago (which lessened pain in the short-term, but now his pain is getting worse and spreading). He is currently taking gabapentin, fluoxetine (anti-depressant), rofecoxib (COX-2 NSAID), methylprednisolone (glucocorticoid) dose pack for flare ups. The patient lives at home with his wife and 3 young kids, however, his wife views this as "his problem" as she works full-time out of the house while he works from home. Patient is a consultant is concerned because he is losing customers due to his back pain. He is currently seeing a psychologist for his depression and is considering a second back surgery but is concerned that any movement will keep herniating his discs and fears a bad result from surgery. Patient just "wants his life back."

Driving pain mechanism?

Central Sensitization
Secondary (neurogenic)

Supporting evidence?

Constant pain with high pain intensity (8-10/10)
Descriptors (sharp, exploding)
Doesn't follow normal 24-pattern of behavior
Doesn't follow predictable aggs/eases (no directional preference)
Pain is "spreading"
Pre-existing depression/anxiety that are worsening
Pain is worse when he is stressed from family/job
Previous surgery, injection, and medications (all not working)

Other biopsychosocial factors to consider?

High levels of fear (fear of movement, fear of future, etc.)
Baseline depression and anxiety
Lack of support at home
High levels of stress (home, family, etc.)

Bibliography

1. Kolski MC, O'Connor A. *A World of Hurt: A Guide to Classifying Pain*. 1st ed. St. Louis, MO: Thomas Land Publishers, Inc.; 2015:367.