

Abigail Chen

JA is a 57-year-old female, presents to the ED with acute lower back pain that began around 10 PM last night. The pain started suddenly without any identifiable trigger and has remained constant and severe since onset. She describes the pain as sharp and aching, radiating down the left leg, accompanied by tingling and numbness in the left foot. She rates the pain as 20/10 without medication and reports that it is worsened when attempting to lie down, significantly limiting her ability to rest. She took diclofenac she had from a prior prescription, which reduced the pain to 8/10. She is not currently on any daily medications.

She reports a similar episode in May while on vacation. At that time, she was prescribed diclofenac, experienced partial relief, and her symptoms resolved, so she discontinued the medication. She states the current episode feels similar but is much more severe.

Her past medical history is notable for a spontaneous (non-traumatic) neck fracture, which previously caused radicular pain down her left arm, and fibrocystic breast disease, status post removal. She denies any recent heavy lifting, falls, direct trauma, tearing pain, fever, chills, bowel or bladder dysfunction, saddle anesthesia, or recent illness. She reports difficulty finding a comfortable position due to the pain.

PMH:

Fibrocystic disease of breast (right) which was removed - 2010

Past and present illness:

None

Hospitalization:

Surgery to remove Fibrocystic disease of right breast- 2010

Childhood illness:

None

Immunizations: Up to date on all immunizations. Denies receiving flu shots this season.

Received 3 covid vaccines(last vaccine in 2025)

Screening tests and results: Unremarkable Pap smear (2023), Unremarkable mammogram (Jan 2025) Unremarkable Colonoscopy (2021).

Medications:

Diclofenac Potassium 1 tab PRN

Allergies:

No known drug allergies.

No known environmental allergies

No known food allergies

FHX:

Father **Alive and healthy 80**

Mother breast cancer at age 45 now in remission, now 75

No siblings

Has 2 sons alive and healthy 28 and 24

Social Hx:

Living Situation: Lives with husband and 2 sons. States she is private and independent.

Psych: Denies depression, anxiety, feelings of helplessness/hopelessness, suicidal ideations, or obsessive-compulsive disorder.

Profession: Takes care of home as a house mom.

Safety measures: states she "wears her seatbelt most of the time".

Diet: Enjoys traditional family meals like lentil soup, chicken curry, rice, and homemade flatbreads. Since she cooks for her family, she usually eats whatever she prepares for them, but on busy days she'll keep it simple with tea and biscuits, yogurt with fruit, or leftover rice and vegetables. She avoids pork for religious reasons and tries to eat balanced, home-cooked meals most days.

Sexual hx: Denies STI. Claims one partner, male.

Smoking: Denies ever smoking

Alcohol: Denies ever drinking alcohol

Drugs: Denies use of drugs

Caffeine: Denies drinking caffeine

Travel: No recent travel

Sleep: Normally sleeps 6-7 hours a night but did not sleep last night

Activity: No exercise unless you count cleaning. Denies going on walks

Review of Systems (ROS)

General: Denies fever, chills, night sweats, or recent illness. Reports feeling tired due to interrupted sleep from pain. No unintentional weight loss.

Skin: Denies rashes, lesions, discoloration, or pruritus.

Head: Denies headache, dizziness, vertigo, lightheadedness, or head trauma.

Eyes: Denies vision changes, diplopia, blurring, photophobia, or eye pain.

Ears: Denies hearing loss, tinnitus, ear pain, or discharge.

Nose/Sinus: Denies nasal congestion, rhinorrhea, or sinus pressure.

Mouth/Throat: Denies sore throat, hoarseness, dental pain, or mouth ulcers.

Neck: Denies stiffness, swelling, or limited range of motion. No current neck pain; reports history of prior neck fracture with past radicular symptoms down the left arm, now resolved.

Breast: Denies lumps, pain, or discharge. History of fibrocystic breast disease status post removal.

Cardiovascular: Denies palpitations, syncope, edema, or known heart murmurs. Denies chest pain.

Pulmonary: Denies cough, wheezing, shortness of breath, or hemoptysis.

GI: Denies abdominal pain, nausea, vomiting, diarrhea, constipation, melena, or hematochezia.

GU: Denies dysuria, hematuria, urinary retention, incontinence, or saddle anesthesia.

Musculoskeletal: Reports constant lower back pain radiating down the left leg, worse when lying down, improved with prior diclofenac. Denies recent trauma. Denies joint swelling or redness. No upper extremity weakness. No tearing abdominal/back pain.

Neurologic: Reports tingling and numbness of the left foot. Denies weakness, gait instability, bowel or bladder incontinence, seizures, or loss of consciousness.

Endocrine: Denies heat/cold intolerance, polyuria, polydipsia, or polyphagia.

Heme/Lymph: Denies easy bruising, bleeding, lymphadenopathy, or history of clots.

Psych: Denies anxiety, depression, suicidal or homicidal ideation.

Physical exam:

General - Patient is a well-appearing 57-year-old woman, AXO3 and cooperative. She appears comfortable at rest but shows mild discomfort when moving into certain positions. No acute distress observed.

Vital Signs:

BP: Right seated: 151/91 mmHg | Left seated: 143/81 mmHg | Right supine: 124/72 mmHg | Left supine: 122/76 mmHg

RR: 16 bpm, unlabored, regular

P: 69 bpm, regular

T: 98.0 °F

O2 sat: 99% on room air

Height: 160 cm

Weight: 96.1 kg

BMI: 37.5

Vitals & General Appearance

Skin: Warm and moist with good turgor. Normal coloration. No rashes, lesions, ulcerations, masses, bruising, or signs of herpes noted.

Hair: Good quantity and even distribution. No visible lice or dandruff.

Nails: No clubbing, pitting, or signs of infection. Capillary refill < 2 seconds in upper and lower extremities.

Head: Normocephalic, no signs of trauma, non-tender to palpation.

Eyes:

External Inspection

Eyes: Normal size, shape, and symmetry. No strabismus (centrally medial b/l cones of light with pen exam).

Brows & Lashes: Brows and lashes are of normal size, shape, and symmetry, with no nits or lice and no abnormal hair distribution.

Lids: No signs of exophthalmos, ectropion, entropion, blepharitis, chalazion, hordeolum, or ptosis.

Inspection

Sclera & Conjunctiva: Sclera are white, and conjunctiva are clear with no lesions or abnormal vascular distribution.

Cornea & Iris: No foreign body or cloudiness.

Lacrimal Apparatus: No swelling or discharge.

Functional Assessment

Visual Acuity (uncorrected): 20/20 OS, 20/20 OD, 20/20 OU.

Visual Fields: Full OU.

Pupils: Equal (4mm b/l) and round, reacting briskly to light, with intact convergence and accommodation.

Extraocular Movements (EOMs): Full range of motion in all directions. No lid lag or nystagmus.

Fundoscopy

Red Reflex: Present OU.

Cup-to-Disc Ratio: <0.5 OU.

Retina: No neovascularization, signs of AV nicking, exudates, or flame hemorrhages.

Ears: Symmetrical and appropriate in size. No lesions, masses, or trauma to external ears.

Cerumen is present bilaterally with no discharge or foreign bodies in the external auditory canals. Tympanic membranes are intact, pearly white, and have a well-positioned cone of light.

Auditory acuity is intact to whispered voice and finger rub test bilaterally. Weber is midline, and Rinne is positive bilaterally (AC > BC)

Nose/Sinus: Symmetrical with no masses, lesions, deformities, trauma, or discharge. Nares are patent bilaterally. Mucosa is pink and well-hydrated. The septum is midline with no ulcerations, lesions, or perforations. Inferior and middle turbinates are appreciated. No foreign bodies detected. Sinuses are slightly tender to palpation and percussion over the frontal, ethmoid, and maxillary sinuses. Trans-illumination is clear.

Mouth/Pharynx: Lips are moist, and non-tender with no cyanosis, cheilitis, or lesions. Oral mucosa is slightly pale and dry with no masses, lesions, or leukoplakia. Palate is pink and well-hydrated. Gingivae are pink and moist with good dentition. The tongue is pink, well-papillated, and has no masses, lesions, or deviation. The oropharynx is well-hydrated with no injection, exudate, masses, or foreign bodies. The uvula is pink with midline elevation. Tonsils are grade 1 with no edema, injection, or exudate.

Neck: Trachea is midline. The neck is supple and non-tender to palpation with no masses, lesions. A well-healed, non-erythematous scar is present over the left subclavian area. No cervical adenopathy. The thyroid is non-tender, non-palpable, and shows symmetrical movement with swallowing.

Thorax & Lungs

Inspection: Chest is symmetrical with no deformities or trauma. Respirations are unlabored with no accessory muscle use.

Palpation: Non-tender to palpation throughout. Tactile fremitus is symmetric.

Auscultation & Percussion: Lungs are clear to auscultation and percussion bilaterally. No adventitious sounds noted. Chest expansion and diaphragmatic excursion are symmetrical.

Cardiovascular

Inspection & Palpation: **Jugular venous pressure is 2.5 cm above the sternal angle at 30°.** The point of maximum impulse (PMI) is at the 5th intercostal space at the mid-clavicular line. No palpable heaves or thrills.

Auscultation: Regular rate and rhythm. Distinct S1/S2 with no murmurs, splitting, friction rubs, S3/S4. Carotid pulses are 2+ bilaterally with no bruits.

Abdomen

Inspection: Abdomen is flat and symmetrical with no striae. No visible aorta pulsation.

Auscultation: **Normoactive bowel sounds in all four quadrants with no bruits or pulsations.**

Palpation & Percussion: Non-tender to palpation. No guarding, rebound, hepatosplenomegaly, or costovertebral tenderness.

Breast & Axillae

Inspection & Palpation: Breasts are symmetric with no dimpling or masses. Nipples are symmetric. No lesions or discharge. Axillary nodes are non-palpable.

Rectum

Rectum: No perirectal lesions or fissures. External sphincter tone is intact. Rectal vault is without masses. Stool is brown.

Neurologic Examination

Mental Status: Alert and oriented to person, place, and time (A&O x3). Cooperative. Thoughts and speech are coherent, and conversation progresses logically. Insight, judgment, cognition, memory, and attention are intact.

Cranial Nerves:

I (Olfactory): Correctly identifies coffee and lemon odors bilaterally.

II (Optic): Visual fields are full by confrontation. Visual acuity is 20/20 corrected. Red reflex is present. Discs are cream-colored with sharp borders. No hemorrhages, exudates, or crossing phenomena.

III, IV, VI (Oculomotor, Trochlear, Abducens): Extraocular movements are intact. Pupils are 3 mm bilaterally and reactive to direct, consensual light, and accommodation. No ptosis. No lid lag. No nystagmus.

V (Trigeminal): Face sensation is intact bilaterally. Jaw muscles are strong without atrophy. Corneal reflex is intact.

VII (Facial): Correctly identifies sweet, salty, and sour tastes. Facial movements are symmetric, including eyebrow elevation, eye closure, and smiling. No facial weakness, droop, or asymmetry observed.

VIII (Auditory): Repeats whispered words at 2 feet bilaterally. Weber is midline. Rinne is AC > BC bilaterally.

IX, X (Glossopharyngeal, Vagus): No hoarseness. Uvula is midline with elevation of the soft palate. Gag reflex is intact. No difficulty swallowing.

XI (Accessory): Full range of motion at the neck with 5/5 strength and a strong shoulder shrug.

XII (Hypoglossal): Tongue is midline without fasciculations and has good strength.

Motor: Good muscle bulk and tone. Strength 5/5 throughout.

Cerebellar: RAMs and point-to-point movements intact. Stable gait. Negative Romberg & pronator drift.

Sensory: Pinprick, light touch, position sense, temperature and vibratory sense intact bilaterally.

Reflexes: 0-4, 2+ normal

	Bicep	Triceps	Brachioradialis	Patellar	Ankle/Achilles	Babinski
Right	2+	2+	2+	2+	2+	Absent
Left	2+	2+	2+	2+	2+	Absent

Peripheral Vascular:

Extremities have normal color and temperature. Pulses are 2+ bilaterally in the upper and lower extremities. No bruits, clubbing, cyanosis, or edema noted. No stasis changes or ulcerations observed.

Musculoskeletal:

No soft tissue swelling, erythema, ecchymosis, atrophy, or deformities in the bilateral upper extremities. Non-tender to palpation with no crepitus. Full range of motion (FROM) of all upper extremities. No evidence of spinal deformities.

In the lower extremities, the right leg demonstrates FROM with no swelling, erythema, ecchymosis, atrophy, or deformities.

Left Lower Extremity:

Patient demonstrates voluntary movement of the left leg, but motion is limited by pain. Active range of motion is reduced due to discomfort, though strength remains 5/5 on neurologic exam. Passive movement is tolerated but also painful, particularly with flexion. Straight-leg-raise (flip test) is positive on the left. No warmth, deformity, swelling, or erythema noted.

Rest of the lower extremity exam is normal.

Assessment

J.A. is a 57-year-old female with no significant chronic medical conditions (history of resolved spontaneous cervical fracture and fibrocystic breast disease s/p removal) presenting with acute, severe low back pain radiating down the left leg. The pain began suddenly last night without trauma and is associated with tingling/numbness of the left foot, worsening when lying down. Diclofenac provided partial relief. Vital signs are notable for elevated blood pressure, likely secondary to pain. Neurologic exam shows Intact strength (5/5), Intact sensation, Symmetric reflexes (2+), Positive straight-leg raise on the left.

These findings are consistent with lumbar radiculopathy. No red flag symptoms (bowel/bladder changes, saddle anesthesia, progressive weakness, fever, trauma) are reported. The presentation is most consistent with acute lumbar disc herniation with left-sided radiculopathy (sciatica)

Problem List / Differential Diagnosis

1. **Acute Lumbar Radiculopathy (Most Likely):**
 - Sudden onset severe low back pain radiating down the left leg.
 - Associated tingling/numbness in the left foot.
 - Pain worsened by movement/position (including lying down).
 - Positive Straight-Leg Raise (SLR) on the left.
 - Normal motor strength suggests nerve root irritation, not severe compression.
2. **Lumbar Disc Herniation:**
 - Most common cause of acute radicular pain; no trauma needed.
 - Fits her symptom pattern and exam findings.
3. **Muscular Strain with Nerve Irritation:**
 - Less likely given the intensity (20/10), shooting nature, radicular distribution, and positive SLR.
4. **Spinal Stenosis:**
 - Possible, but less likely due to sudden onset and worsening when lying down (stenosis usually improves with flexion).
 - She did not claim movement improvement with leaning forward.
5. **Less Likely but Must Consider (Ruled Out):**
 - Epidural abscess: No fever, normal vitals, no risk factors.
 - Cauda equina syndrome: No urinary retention, saddle anesthesia, or weakness.
 - Fracture: No trauma; pain quality not suggestive.
 - Abdominal dissection- no tearing pain, no palpable pulsating abdominal aorta

Plan

1. **Pain Management:**
 - Continue NSAID therapy (diclofenac or switch to ED protocol NSAID like ketorolac if renal function is normal).
 - Add scheduled acetaminophen if tolerated.
 - *Consider short course of:*
 - Muscle relaxant (e.g., cyclobenzaprine or methocarbamol) for spasm relief.
 - Oral steroids (e.g., methylprednisolone dose pack) if pain remains severe/markedly limits function.
2. **Imaging:**
 - **No emergent MRI needed** due to: No red flags, no motor deficits, and symptoms <48 hours.
 - **Outpatient MRI recommended if:** Symptoms persist 4–6 weeks, new weakness develops, or concern for structural cause requiring intervention arises.

3. Activity / Physical Therapy:

- Encourage gentle activity as tolerated (avoid prolonged bed rest).
- Heat or ice to lower back, based on preference.
- Avoid heavy lifting or twisting.
- Once acute pain improves, start outpatient PT focusing on core strengthening, flexibility, and lumbar stabilization exercises.

4. Blood Pressure:

- Elevated readings are likely secondary to pain. Recheck after pain control.
- Does not currently meet criteria for hypertensive urgency/emergency.

5. Red Flag Monitoring:

- Educate patient on urgent return precautions: New/worsening leg weakness, loss of bowel/bladder control, saddle anesthesia, intractable pain despite medications, fever, or systemic symptoms.

6. Supportive Care:

- Encourage normal sleep schedule once pain improves.
- Adjust positions at home: side-lying with pillow between knees, avoid lying flat.
- Use assistive devices (heat packs, lumbar support) as needed.

7. Follow-Up:

- Follow up with PCP or spine specialist within 1 week.
- Outpatient MRI if symptoms persist or worsen.
- Return to ED sooner if red flag symptoms develop.

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