Student: Anannya Dey

History

Chief Complaint: "I have Angina" x 2 days

History of Present Illness: 72 y/o female with a PMHx of HTN, diabetes, hyperlipidemia and a surgical history of coronary stent, presents to the ER % chest pain starting 2 days ago. Pt states the pain is located in the middle of her chest and behind the sternum. Pain radiates to the neck and mid back, but mostly to the back. Describes the pain as abrupt, sharp and continuous. The pain started when the patient was sleeping, around 5 am. Pt states taking nitroglycerin SL 0.4 mg upon onset of pain, which alleviated the pain. Last dose of nitroglycerin was today at 5:30 am. Pain is not worsened by exertion, after eating or relieved with rest. She rates the chest pain a 7/10 and unlike any chest pains she experienced in the past. Complains of nausea, headache and loss of appetite since the onset of pain as well. Pt had seen her PCP yesterday due to continuous pain and needing to repeatedly take nitroglycerin to relieve it. PCP performed an EKG and noted an abnormality and instructed her to go to the ER. Denies SOB, palpitations, vomiting, diaphoresis, pain radiating down the arm and syncope.

Past Medical History:
Present illnesses – Diabetes, hyperlipidemia and hypertension, unable to recall duration
Past medical illnesses – none
Childhood illnesses – none
Immunizations – Up to date; flu vaccine yearly.
Screening tests and results –

- Mammogram: 6 years ago, no abnormality
- Colonoscopy: 6 years ago, no abnormality

Past Surgical History:
Coronary stent for coronary artery blockage, in January 2023, no complications but states it took a while for her to recover
Denies past injuries or transfusions.

Medications:
Nitroglycerin for angina, SL 0.4mg PRN/first sign of chest pain
Unable to recall diabetes medication but states she takes it orally, BID
Baby aspirin for prevention of heart attack, 81 mg once a day before bedtime
Allergies: no allergies to medications or food

Family History:

Mother – HTN, DM
Father – HTN, DM
1 daughter, no medical history
Denies family history of cancer.

Social History:

Pt is married, retired and lives at home with her husband. She does not smoke, drink or use drugs. Not sexually active and no history of previous STDs. Diet normally consists of noodles, rice and vegetables. Pt does not exercise, except walking around the house. She sleeps about 5-6 hours a night but states she has to take melatonin pills to fall asleep that was prescribed by her PCP. No recent travel, normally does not travel often. Uses safety measures such as seat belts.

Review of Systems:

General: (+) fatigue, loss of appetite. Denies recent weight loss or gain, generalized weakness, fever or chills, or night sweats.

Skin, hair, nails: Denies changes in texture, excessive dryness or sweating, discolorations, pigmentations, moles/rashes, pruritus or changes in hair distribution.

Head – (+) headache. Denies vertigo or head trauma.

Eyes – Denies lacrimation, pruritus, visual disturbances, or photophobia. She wears glasses but not with her. Last eye exam July 2023 – does not know her visual acuity; normal pressure.

Ears – Denies deafness, pain, discharge, tinnitus or use of hearing aids.

Nose/sinuses – Denies discharge, obstruction or epistaxis.

Mouth/throat – Denies bleeding gums, sore tongue, sore throat, mouth ulcers, voice changes or use dentures. Last dental exam in 2021, no complications.

Neck – Denies localized swelling/lumps or stiffness/decreased range of motion

Breast – Denies lumps, nipple discharge, or pain.

Pulmonary system – Denies dyspnea, dyspnea on exertion, cough, wheezing, hemoptysis, cyanosis, orthopnea, or paroxysmal nocturnal dyspnea (PND).

Cardiovascular system – (+) chest pain, (+) HTN. Denies palpitations, irregular heartbeat, edema/swelling of ankles or feet, syncope or known heart murmur

Gastrointestinal system – (+) nausea, (+) change in appetite. Has regular bowel movements daily, intolerance to specific foods, vomiting, dysphagia, pyrosis, unusual flatulence or eructations, abdominal pain, diarrhea, jaundice, hemorrhoids, constipation, rectal bleeding, or blood in stool.

Genitourinary system – Denies urinary frequency or urgency, nocturia, oliguria, polyuria, dysuria, incontinence, awakening at night to urinate or flank pain.

Menstrual/Obstetrical – G(4)P(1031) (NSVD x 1), no complications. Menarche age unable to recall. LMP at age 57. Currently in menopause – denies hot flashes or associated menopausal symptoms. Denies breakthrough bleeding/spotting or vaginal discharge.

Nervous – (+) headache. Denies seizures, loss of consciousness, sensory disturbances, ataxia, loss of strength, change in cognition / mental status / memory, or weakness.

Musculoskeletal system – Denies muscle/joint pain, deformity or swelling, redness or arthritis.

Peripheral vascular system – Denies intermittent claudication, coldness or trophic changes, varicose veins, peripheral edema or color changes.

Hematological system – Denies anemia, easy bruising or bleeding, lymph node enlargement, blood transfusions, or history of DVT/PE.

Endocrine system – Denies polyuria, polydipsia, polyphagia, heat or cold intolerance, excessive sweating, hirsutism, or goiter

Psychiatric – Denies depression/sadness, anxiety, OCD or ever seeing a mental health professional.

Physical

General: Pt appears alert and oriented, lying supine, maintains eye contact and not in respiratory distress or clenching chest.

Vital Signs:	BP:	R	L
	Seated	unable to obtain seated because pt was hooked up to monitor	
	Supine	174/82	176/82

R: 20/min unlabored P: 59, regular

T: 97.9 degrees F (oral) O2 Sat: 98% Room air

Height 64 inches. Weight 138 lbs. BMI: 23.7

Skin and head:
Skin - good temperature, good turgor. Nonicteric, no lesions, scars, or tattoos noted.
Hair - good quantity and distribution. Mild alopecia. No seborrhea or lice on exam. Nails - No cyanosis, clubbing, or lesions noted. Capillary refill <2 seconds in upper and lower extremities.
Head - Normocephalic, atraumatic with no evidence of contusions, ecchymoses, hematomas, or lacerations. Nontender to palpation throughout.

Eyes - Symmetrical OU. No strabismus, exophthalmos or ptosis. Sclera white, cornea clear, conjunctiva pink.
Visual acuity: 20/25 OS, 20/30 OD, 20/20 OU
Visual fields full OU. PERRLA, EOMs intact with no nystagmus
Fundoscopy - Red reflex intact OU. Cup to disk ratio< 0.5 OU. No AV nicking, hemorrhages, exudates or neovascularization OU.

Ears: Symmetrical and appropriate in size. No lesions, masses, or trauma on external ears. No discharge/foreign bodies noted in external auditory canals AU. TMs pearly white/gray and intact with light reflex in good position AU. Auditory acuity intact to whispered voice AU. Weber midline/Rinne reveals AC > BC AU.

Nose - Symmetrical with no masses, lesions, deformities, trauma. Nares patent bilaterally. Nasal mucosa pink & well hydrated. No discharge noted on anterior rhinoscopy. Septum midline without lesions, deformities, or perforation. No foreign bodies.

Sinuses - Non tender to palpation and percussion over bilateral frontal, ethmoid and maxillary sinuses.

Mouth and pharynx:
Lips: pink, moist. No cyanosis or lesions. Non-tender to palpation.
Oral mucosa: pink, well-hydrated. No masses, discharge, or lesions noted.
Palate: pink, well-hydrated. Palate architecture intact with no lesions, masses, or scars.
Teeth: Good dentition. No obvious dental caries
Gingivae: pink, moist. No masses, lesions, or hyperplasia. No swelling, discharge, or

bleeding.
Tongue: Pink, well-papillated. No masses, lesions, or erythema. No leukoplakia.
Oropharynx: Well hydrated. No blood, masses, lesions, foreign bodies, or post-nasal drip. Tonsils present with no exudates or deviation. Uvula pink and midline, without edema or lesions.

Neck: Trachea midline. No masses, lesions, or scars. Supple and non-tender to palpation. No cervical lymphadenopathy noted.

Thyroid: Non-tender, rubbery, and mobile. No palpable masses or thyromegaly.

Chest: Symmetrical. Respirations unlabored and no accessory muscle use noted. No deformities or trauma. Lateral to AP diameter 2:1. Non-tender to palpation throughout.

Lungs: Clear to auscultation and percussion bilaterally. Chest expansion and diaphragmatic excursion symmetrical. Tactile fremitus symmetric throughout.

Heart: Auscultations show regular rate and rhythm. JVP is 2.5 cm above the sternal angle with the head of the bed inclined at 30 degrees. PMI in 5th intercostal space in the mid-clavicular line. Carotid pulses are 2+ b/l without bruits of thrills. Distinct S1 and S2 with no S3 or S4 sounds and no murmur. No friction rub noted.

Abdomen: Soft, nontender and non distended. No lesions, masses, swelling, or discoloration noted on inspection. Bowel sounds normoactive in all four quadrants on auscultation, with no aortic/renal/iliac/femoral bruits. No rigidity, guarding, or rebound noted on palpation. No hepatosplenomegaly appreciated on palpation. No CVA tenderness or flank tenderness noted. No fluid wave noted.

Female GENITALIA:
External genitalia without erythema or lesions. Vaginal mucosa pink without inflammation, erythema or discharge. Cervix parous (or multiparous), pink, and without lesions or discharge. No cervical motion tenderness. Uterus anterior, midline, smooth, non-tender and not enlarged. No adnexal tenderness or masses noted. Pap smear obtained. No inguinal adenopathy.

RECTAL
Rectovaginal wall intact. No external hemorrhoids, skin tags, ulcers, sinus tracts, anal fissures, inflammation or excoriations. Good anal sphincter tone. No masses or tenderness. Trace brown stool present in vault. FOB negative.

BREAST: Symmetric, no dimpling, no masses to palpation, nipples symmetric without discharge or lesions. No axillary nodes palpable

NEUROLOGIC EXAM:
Mental status: Alert and oriented to person, place, and time. Recent and remote memory, attention, abstract thinking, and new learning ability are intact. Cranial nerves: I - XII intact.
Motor: Good muscle bulk and tone with 5/5 strength on bilateral upper and lower extremities. No fasciculations.
Cerebellar: Rapid alternating movements, finger to nose intact. Stable gait. Negative Romberg and pronator drift.
Sensory: Pinprick, light touch, vibratory sense, and position sense intact bilaterally.
Reflexes: biceps 2+ b/l, triceps 2+ b/l, brachioradialis 2+ b/l, patellar 2+ b/l, ankle/achilles 2+ b/l, Babinski absent b/l.

PERIPHERAL VASCULAR: The extremities have good color, size, and temperature. Pulses are 2+ bilaterally in upper and lower extremities. No bruits, clubbing, cyanosis, or edema noted bilaterally. No stasis changes or ulcerations noted.

MUSCULAR EXAM: Upper extremities - no swelling, erythema, atrophy, ecchymosis, or deformities
bilaterally. Nontender to palpation with no crepitus noted throughout. Full active range of motion bilaterally.
Lower extremities - no swelling, erythema, atrophy, ecchymosis, or deformities bilaterally. Nontender to palpation with no crepitus noted throughout. Full active range of motion bilaterally.

ASSESSMENT

72 y/o female with PMHx of angina, HTN, hyperlipidemia and diabetes with a coronary stent placed January 2023, presents with acute onset, sharp, continuous chest pain and nausea for 2 days, radiating to the back. Last dose of SL nitroglycerin 0.5 mg 5:30 am this morning which relieved the pain. Denies SOB and palpitations. Pt is alert and oriented. BP slightly elevated others vitals are normal. Physician exam of heart and lungs is unremarkable.

INITIAL PLAN: Upon arrival to the ER, I would first assess the airway and provide oxygen if needed. Then I would obtain vitals and put the pt on an EKG monitor. I will administer aspirin if not given by EMS already. Since the pt is complaining of nausea as well, sublingual zofran should be administered. EKG monitor and pulse oximetry should be checked every 15 mins. With administering nitroglycerin again, I would wait for the EKG first just in case it is an inferior wall MI.

General labs to order: Troponin, CMC, CMP, D-dimer, clotting factors, type and screen in case pt goes into surgery. Would also perform a COVID/flu test as well.

DIFFERENTIALS AND PLAN:

1) **Aortic dissection**: Patient is older, has a history of hypertension and states pain is traveling to her back. Described the pain as anterior and being sharp and severe as well. Pt's bp is elevated upon arrival, but not too elevated. Something that might make me think of other differentials is the fact that the pt had chest pain for two days. I am thinking that if this was an aortic dissection, it would probably dissect by now and their bp would be much more elevated.

   Plan: Check for any murmurs, pulse deficit in radial or femoral arteries which can be checked by taking bp. **CT aortogram** to look for widening of the aorta, CBC, BMP, type and screen, clotting factors. Administer esmolol to control BP, but a low dose. We would also want to check if the pt is having a type A or type B dissection because type A would need to go to the OR for repair.

2) **Acute coronary syndrome: MI/ Unstable Angina**

   Pt is older, has a history of angina, HTN, HLD and stent placed for blocked coronary arteries. So it is possible she is having another episode of unstable angina or MI, having to do with another coronary artery OR the same artery. Although she stated that this pain is new and unlike the chest pains she had in the past. It could just present itself differentially, especially in elderly patients. The pain also does not become better with rest, as opposed to stable angina which does get better with rest. Lastly, nitroglycerin is helpful which further points toward this diagnosis.

   Plan for STEMI: IV Access, cardiac monitor, pulse oximetry all under 10 mins to look for ST elevation. Troponin would help us determine if this is an MI or UA. Would also do type and screen. Depending on EKG and troponin, if this was an MI, I would activate STEMI code. Administer aspirin and plavix and heparin. Handoff to catheterization lab for PCI.

   Plan for NSTEMI: I would not activate STEMI code here. I will still have the pt on cardiac monitor, monitor pulse oximetry, IV access and obtain stat cardiology consultation. Administer all the same meds as STEMI. Pt will be admitted until cleared by the cardiologist.

3) **In-stent restenosis:**

   Pt had a coronary stent procedure earlier this year. The stent can fail due to restenosis and that can cause recurrent angina. The coronary artery can narrow again after scar tissue forms under the stent. According to uptodate, restenosis of the stented segment can occur mostly between 3 to 12 months after stent placement, which is consistent with the pt who had the stent placed less than 12 months ago.

Plan: I would perform an EKG, check vitals, administer aspirin and plavix. Pt would have to go to the catheterization lab for PCI again in order to repair the stent.

4) **Acute pericarditis**: Pt has a history of MI and heart surgery which increases her risk for pericarditis. Pain with pericarditis is sudden and sharp as well. Patients can feel the pain radiating to the back. But, the patient stated that the pain does not become better or worse with positional changes which would steer me away from this diagnosis. There are no pulmonary symptoms such as cough or SOB, or pain getting worse when lying down.

   Plan: Auscultate for pericardial friction rub. I would do an EKG to look for nonspecific ST and T wave abnormalities. I can do an echo as well to look for pericardial effusion. Some labs I will order are troponin, CBC, BNP, ESR and CRP. Treatment of pericarditis are NSAIDs and to treat the underlying cause.

5) **Gastroesophageal reflux disease (GERD):** Highly unlikely differential but I wanted to think about a diagnosis that was not cardiac related. A very common cause of chest pain that is not cardiac related is GERD and that can sometimes mimic a heart attack. Pt takes aspirin and NSAID use can cause gastric problems. Pt stated that the pain is behind the sternum and lower down the chest which is very close to the gastric region. The pain also radiates to the neck and gastric acid can go all the way to the esophagus. But what makes this differential unlikely history wise is that when asked if the pain starts after eating or gets worse, pt said that did not make any difference to the pain. And she reported that the pain does not get worse when she lays down. Also chest pain from gerd should not get better with nitroglycerin.

   Plan: I would prescribe PPIs such as omeprazole and follow up with the patient to check for improvement. An upper gastrointestinal endoscopy can also be done but that is usually after PPIs are given and to check for further complications such as gastric ulcers. I would also educate the patient not to lay down until at least 1-2 hours after eating. Eat less fatty, spicy or fried foods.