JCM Oct 2026 Quiz

KWH

Case 1

- 59/F
- PMH：
  - Incisional hernia with/repairment
  - DCIS right breast with SM+ AD
  - Lung nodules FU CTS
  - Endometrioid Ca
- HPI:
  - PETCT in private radiology center
  - Left hand IV access site pain during contrast injection
  - Progressive painful swelling
  - (no attempt to aspirate, no antidote given)

Case 1





Case1


Study Time: 15:57:58
MRN: P9601698
DOB: 07-May-1966
Sex: F
52 KV
1505 x 1463
PA
W:4096 L:2048
Study Time: 15:56:37
MRN: P9601698
DOB: 07-May-1966
Sex: F
L
53 KV
3117 x 998
AP
W:4096 L:2048

Case 1

- P/E:
  - Marked swelling
  - Skin changes
  - Left hand XR: Radiopacity over the soft tissue of left hand and left forearm

Case 1 MCQ 1

- What is the most appropriate immediate step if extravasation was detected during infusion?

A

Remove the IV cannula immediately

B

Apply a warm compression to the area

C

Stop the injection and disconnect the IV tubing

D

Administer intravenous antihistamines

Case 1

- The grading of extravasation

Grade	Clinical characteristics	
I	• Painful IV site • Difficulty running infusion	
II	• Painful IV site • Erythema • Slight swelling • No skin blanching • Normal peripheral pulses and capillary refill	

Case 1

- How do you differentiate between mild and severe extravasation?

Grade	Clinical characteristics	
III	• Painful IV site • **Skin blanching** • **Marked swelling** • Cool to touch • Normal pulses and capillary refill	
IV	• Painful IV site • **Skin blanching** • **Very marked swelling** • Cool to touch • **Capillary refill > 4 seconds** • **Decreased or absent pulse** • **Skin breakdown / necrosis**	 

Case 1 MCQ 2

- A patient has developed contrast extravasation with marked swelling, skin blanching, and a cool limb. Her capillary refill is normal. What grade is this?

A Grade I	B Grade II
C Grade III	D Grade IV

Case 1 MCQ 3

- What is the specific antidote for radiographic contrast media extravasation?

A

Phentolamine

B

Hyaluronidase

C

Dimethyl sulfoxide (DMSO)

D

Sodium thiosulfate

Case 1 MCQ 4

- What is the time frame within which the antidote injection should ideally be given?

A

Within 24 hours

B

Within 60 minutes

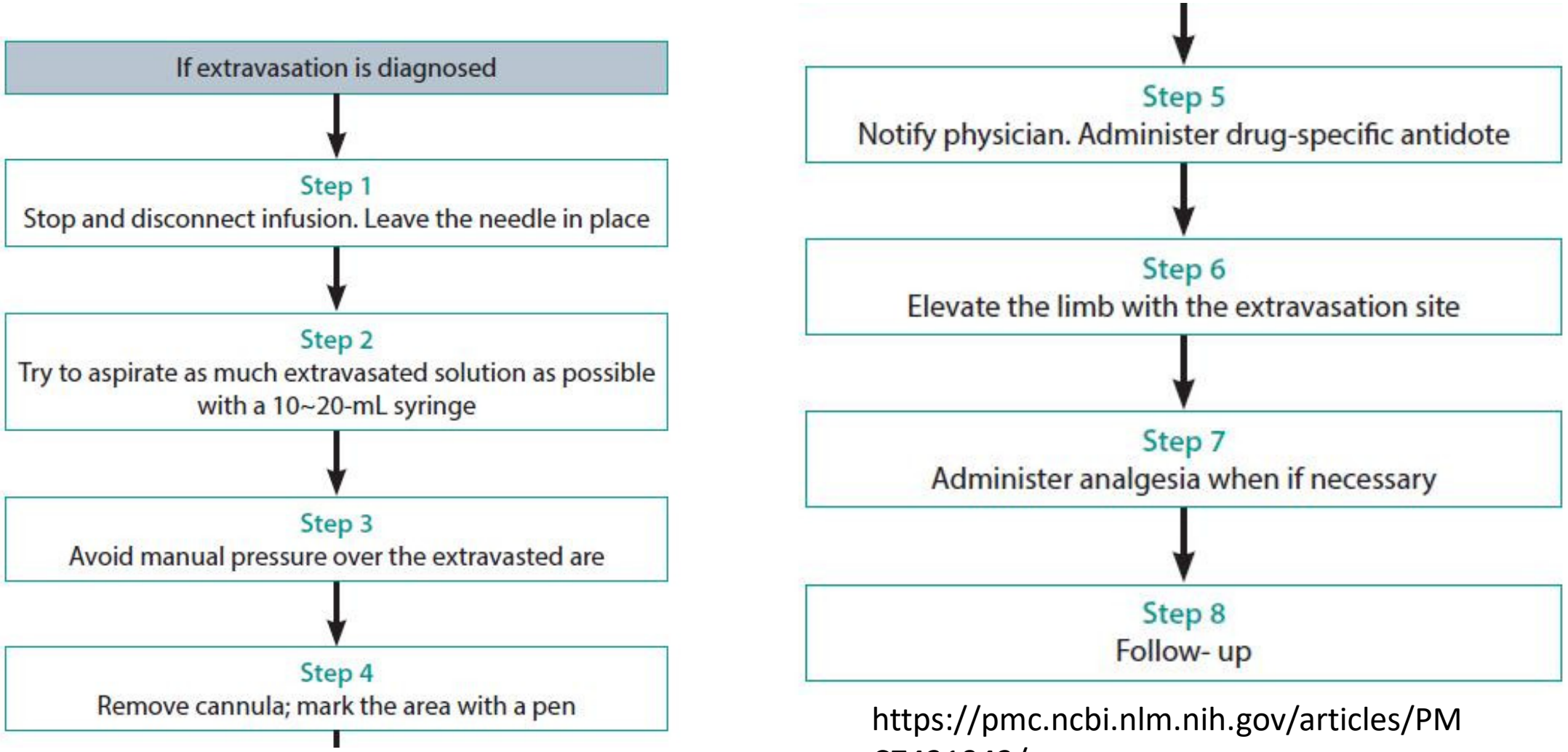
C

Within 2 hours

D

Within 4 hours

Initial management of extravasation



https://pmc.ncbi.nlm.nih.gov/articles/PMC7431942/

Case 1 MCQ 5

- After the initial management, you closely monitor the patient for the deterioration to Grade IV. What is the indication for surgical referral?

A

Skin ulceration, blistering or necrosis

B

Altered tissue perfusion

C

suspected compartment syndrome

D

All of the above

Case 2

- 47/F
- GPH
- HPI:
  - Contusion of left periorbital area by employer’s hand accidentally 3 days ago
  - Progressive ptosis and double vision
  - Headache+
  - Otherwise, no nausea/vomiting/seizures/focal weakness

Case 2

- P/E:
  - GCS 15/15
  - BP 120/75 mmHg, HR 72, RR 16 SpO2 99% on RA
  - No external wound. No periorbital bruise or battle's sign
  - Pupil right pupil 3mm, reactive to light, left pupil 5mm sluggish reaction to light
  - Left eye complete ptosis
  - Left eye deviation down and out
  - Other CNs no palsies
  - No motor or sensory deficits

Case 2 MCQ 1

- What is the most likely diagnosis?

A

Medical oculomotor nerve palsy

B

Surgical oculomotor nerve palsy

C

Congenital oculomotor nerve palsy

D

Myasthenia gravis

Case 2



Case 2 MCQ 2

- What is the finding of this CT brain?

A

Extra-axial haemorrhage

B

Subarachnoid haemorrhage

C

Acute ischaemic infarct in the midbrain

D

Normal CT brain

Case 2 MCQ 3

- Which of the following is the most appropriate next investigation to exclude the most life-threatening cause of her clinical condition?

A

CT angiography (CTA) of the head

B

Lumbar puncture (LP)

C

MRI brain with contrast

D

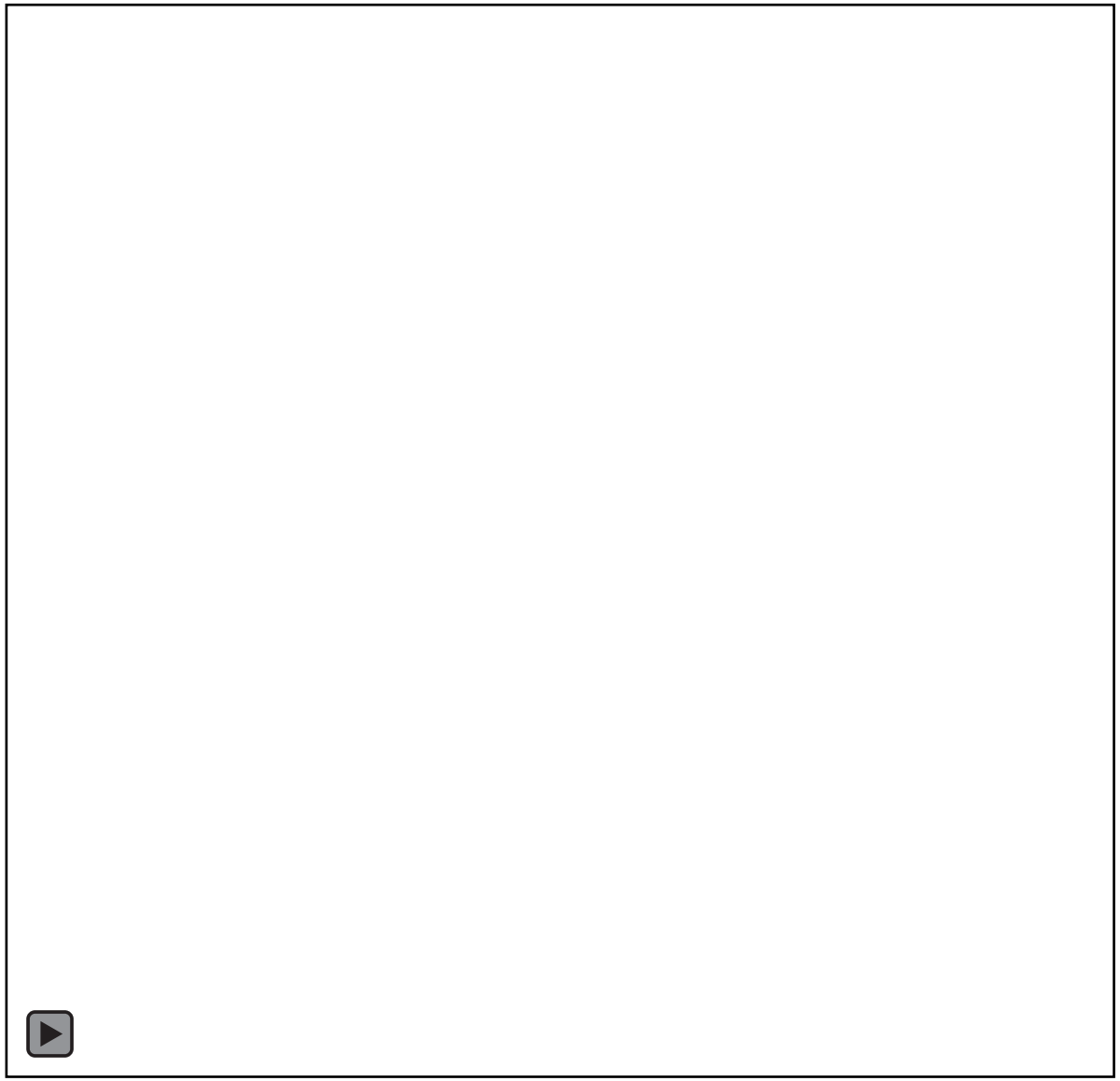
Repeat NCCT in 24 hours

Case 2

- Urgent CT cerebral angiogram was arranged
- While awaiting for CTA, she developed cardiac arrest
- ROSC after active resuscitation
- CT brain repeated

Case 2

- CT brain after cardiac arrest



Case 2 MCQ 4

- Repeat CT brain now shows diffuse subarachnoid haemorrhage (SAH). Which of the following aneurysms is the most common cause of pupil-involving 3rd nerve palsy?

A

Middle cerebral artery (MCA)

B

Anterior communicating artery (AComA) aneurysm

C

Posterior communicating artery (PComA) aneurysm

D

Posterior circulation aneurysms

Case 2 MCQ 5

- What is the next step of management?

A

Start transamin infusion

B

Urgent neurosurgical consultation, along with medical management including, blood pressure control, and seizure prophylaxis

C

Perform a lumbar puncture to confirm the diagnosis before any treatment

D

Administer intravenous mannitol to reduce intracranial pressure

Case 3

- 77/F
- PMH:
  - HT, hyperlipidemia, hypothyroidism
  - OA knee, right elbow #, right tibial plateau #
- Progressive Left thigh pain for 1 month
- Dull pain with weight bearing
- No recent history of trauma
- Premorbid able to walk unaided. Pain increased for 1 week and need to walk with stick

Case 3

- P/E:
  - BP 167/88mmHg P 93 T 37.2C
  - General: well, not distress
  - Musculoskeletal:
    - Left thigh: tenderness over the lateral proximal femur. No swelling, no erythema
    - Left hip: ROM similar to contralateral hip, painful on hip movement
    - No lower limb length discrepancy
    - Gait: able to bear weight standing, antalgic gait and need to walk with stick
    - No distal neurovascular deficits

Case 3

- XR left femur





Case 3 MCQ 1

- What is the findings of these X-rays?
- I) normal X ray
  II) cortical thickening over lateral thigh
  III) A transverse radiolucent line originating from the lateral cortex with focal periosteal thickening ("beaking" or "flaring")
  IV) A lytic lesion with cortical destruction and an associated soft tissue mass

A	B	C	D
I only	III only	II and III only	II, III, IV only

Case 3 MCQ 2

- What is the most likely diagnosis?

A

Osteoporotic femoral shaft fracture

B

Metastatic bone lesion

C

Atypical femoral fracture

D

Osteomyelitis

Case 3 MCQ 3

- Which of the following is **NOT** a major criterion for the diagnosis of an AFF according to the ASBMR 2013 criteria?

A

Fracture located in the subtrochanteric or femoral shaft region

B

Fracture extends through both cortices and is comminuted

C

Fracture line originates at the lateral cortex and is transverse

D

Localized periosteal thickening of the lateral cortex

Case 3 MCQ 4

- What are the principles of management for this impending AFF?

A

Continue bisphosphonate therapy and;

initiate a course of teriparatide to promote bone healing;

with protected weight-bearing and monthly X-ray follow-up

B

Stop bisphosphonate therapy, and;

refer for physiotherapy and gait training

C

Stop bisphosphonate immediately;

Give calcium and vitamin D supplementation;

and refer to Orthopaedics for assessment of prophylactic intramedullary nailing

D

Stop bisphosphonate and start denosumab as an alternative anti-resorptive agent;

with strict non-weight-bearing and repeat imaging in 6 weeks

Case 3 MCQ 5

- She mentions that she had a "drug holiday" in the past. Which of the following best describes the indication, duration, and monitoring for a bisphosphonate drug holiday?

A

A drug holiday is indicated for **all** patients after 2 years of bisphosphonate therapy;
should last for 5 years, and;

requires no monitoring during the holiday period

B

A drug holiday is indicated only if the patient develops an AFF;
should last for 6 months and;

requires monthly bone density testing

C

A drug holiday is considered after 3-5 years of bisphosphonate therapy in patients at low to moderate fracture risk;

typically lasts 1-3 years and;

requires re-evaluation of bone mineral density (BMD) and fracture risk before restarting therapy

D

A drug holiday is recommended for all patients after 5 years of therapy regardless of fracture risk;

should last for 2 years, and;

requires routine serum calcium and vitamin D monitoring only, with no need for BMD reassessment

Case 4

- 32/F
- GPH previously.
- Recent encephalitis, with percutaneous tracheotomy with a cuff size 7.5 done with bronchoscopic guidance.
- HPI:
  - ~ 100ml bleeding from the tracheostomy site
- P/E:
  - No stridor
  - BP 128/70 mmHg, HR 110 bpm, SpO_2 97% on 2 L/min oxygen
  - small amount of blood clots around the tracheostomy opening

Case 4 MCQ 1

- What is the most appropriate initial step in management?

A

Deflate the tracheostomy cuff to assess the source of bleeding

B

Remove the tracheostomy tube immediately to visualize the bleeding site

C

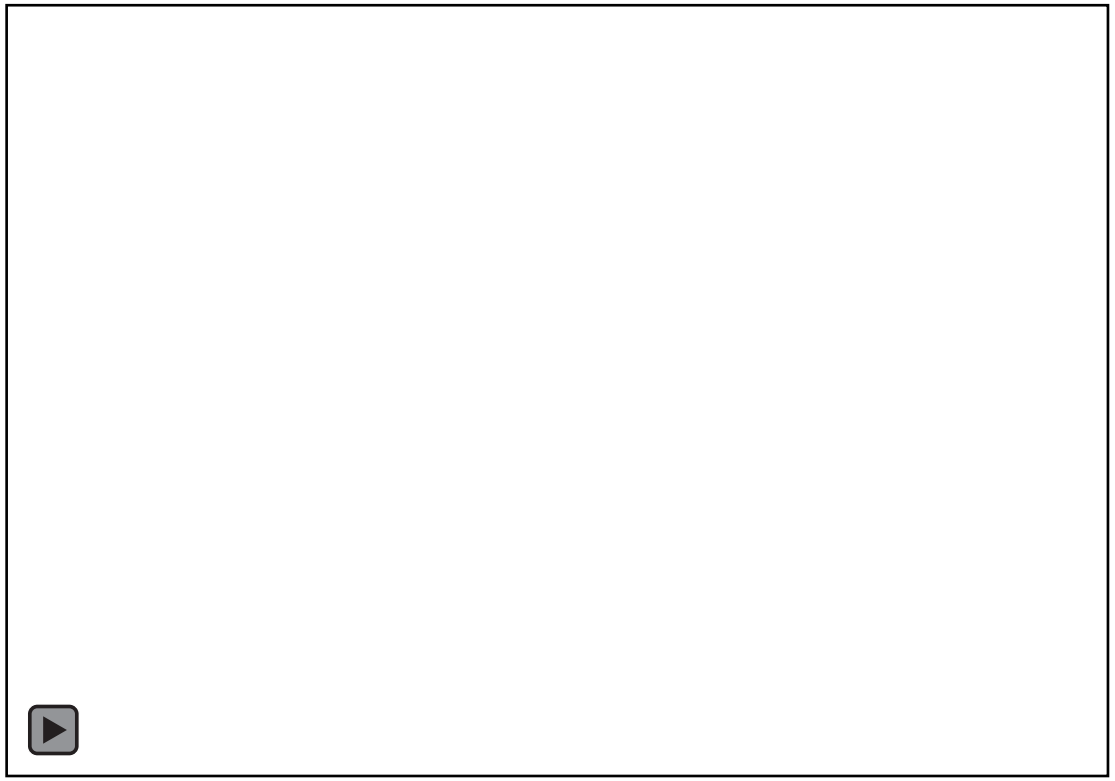
Assess and stabilize the airway and breathing, place the patient in a 45-degree prop-up position, and give supplemental oxygen

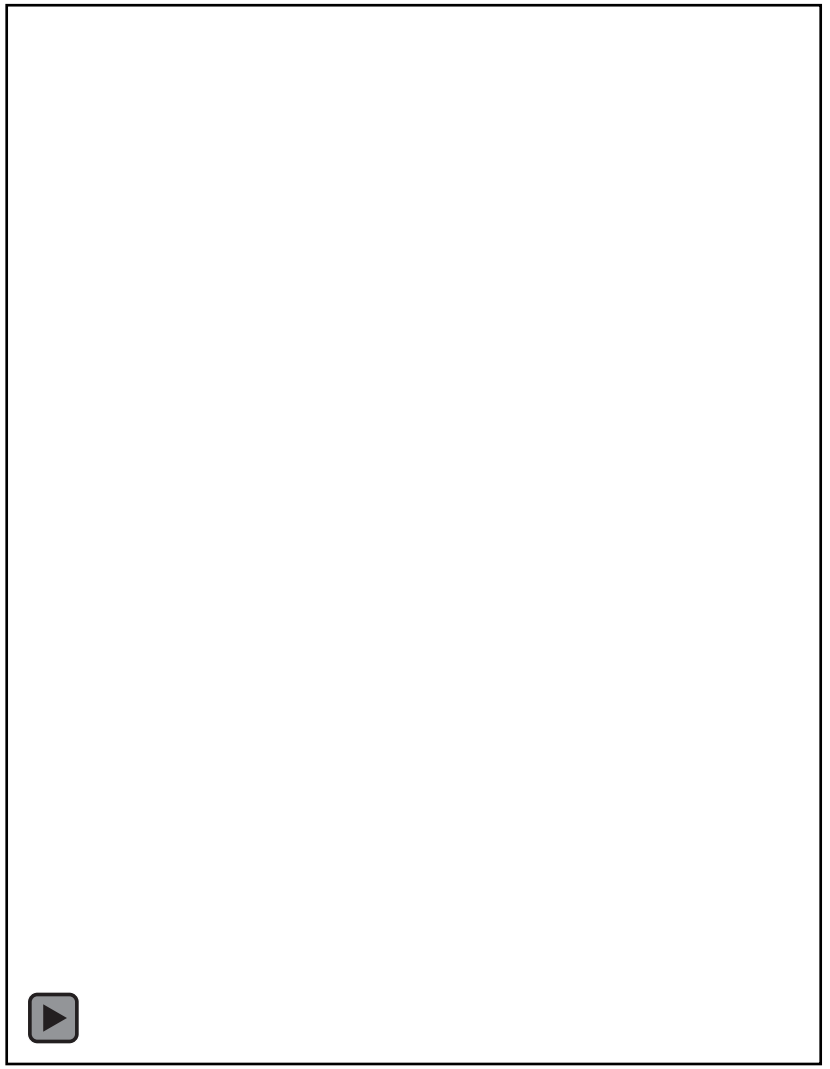
D

Perform immediate CT angiography to identify the bleeding source before any intervention

Case 4

- CT angiography is performed





Case 4 MCQ 2

- What is the most important diagnosis in this patient?

A

Tracheal mucosal tear

B

Tracheo-innominate fistula (TIF)

C

Local stomal infection

D

Venous oozing from granulation tissue

Case 4 MCQ 3

- The patient's bleeding continues, and she becomes increasingly distressed. There is audible stridor, and the suction catheter cannot be passed through the tracheostomy tube. What is the most appropriate next step?

A

Deflate the cuff and attempt to pass a smaller suction catheter

B

Remove the inner tube cautiously and pass a suction catheter to remove any obstructing sputum plug or blood clot

C

Remove the entire tracheostomy tube and bag-valve-mask the patient via the stoma

D

Administer intravenous tranexamic acid and observe for 10 minutes

Case 4 MCQ 4

- The patient suddenly develops massive hemorrhage from the tracheostomy. Which of the followings are appropriate immediate temporizing measure?
- i) Deflate the tracheostomy cuff to assess the source of bleeding
- ii) Hyper-inflate the tracheostomy cuff with a 50 mL syringe of air
- iii) insert a finger through the stoma and apply digital pressure anteriorly against the manubrium

A	B	C	D
I and ii	I and iii	ii and iii	all of the above

Case 4 MCQ 5

- What is the most appropriate definitive treatment for this patient?

A

Tracheostomy exchange with a larger cuffed tube and long-term antibiotic therapy

B

Median sternotomy with innominate artery ligation or endovascular stenting of the innominate artery

C

Bronchoscopic cauterization of the bleeding point and placement of a tracheal stent

D

Conservative management with tranexamic acid, blood transfusion, and serial hemoglobin monitoring

END