

Question 1: A 45-year-old man presents with staphylococcal endocarditis involving the mitral valve. He undergoes surgical debridement and replacement of the valve with a mechanical prosthesis. One week later, he presents with skin rash over the limbs (see Fig.1)

The blood count is as follows:

		<u>Reference range</u>
Hb	8.5 g/dl	(13.5-18 g/dl)
MCV	92 fl	(80-98 fl)
WBC	$12.5 \times 10^9/\text{L}$	$(4.0-11.0 \times 10^9)$
Neutrophils	$8.4 \times 10^9/\text{L}$	$(2.0-8.0 \times 10^9)$
Platelets	$35 \times 10^9/\text{L}$	$(140-400 \times 10^9)$
PF4	IgG +ve	



Fig.1

(1) What does PF4 stand for? (1 point)

Answer:

(2) Given the blood count result, what is the likely diagnosis? (1 point)

Answer:

(3) What is the commonest complication of this condition? (1 point)

Answer:

(4) Name 4 common sites where complication occurs (4 points)

Answer:

(5) Name an alternative drug that can be used in this patient to avoid this condition. (1 point)

Answer:

Question 2: A 60-year-old woman presents with on and off left hip pain for one year.

(1) What abnormalities can be found on the XR? (Fig 2) (3 points)

Answer:

(2) What is the diagnosis? (1 point)

Answer:

(3) What other bones can this condition typically involve? (3 points)

Answer:

(4) What does the serum Calcium & phosphate level typically show? (1 point)

Answer:

(5) Name 3 possible complications of this condition (3 points)

Answer:



Fig 2.

Question 3: Four patients present to A&E with swollen ankles after twisting injury.

Where are the fractures?

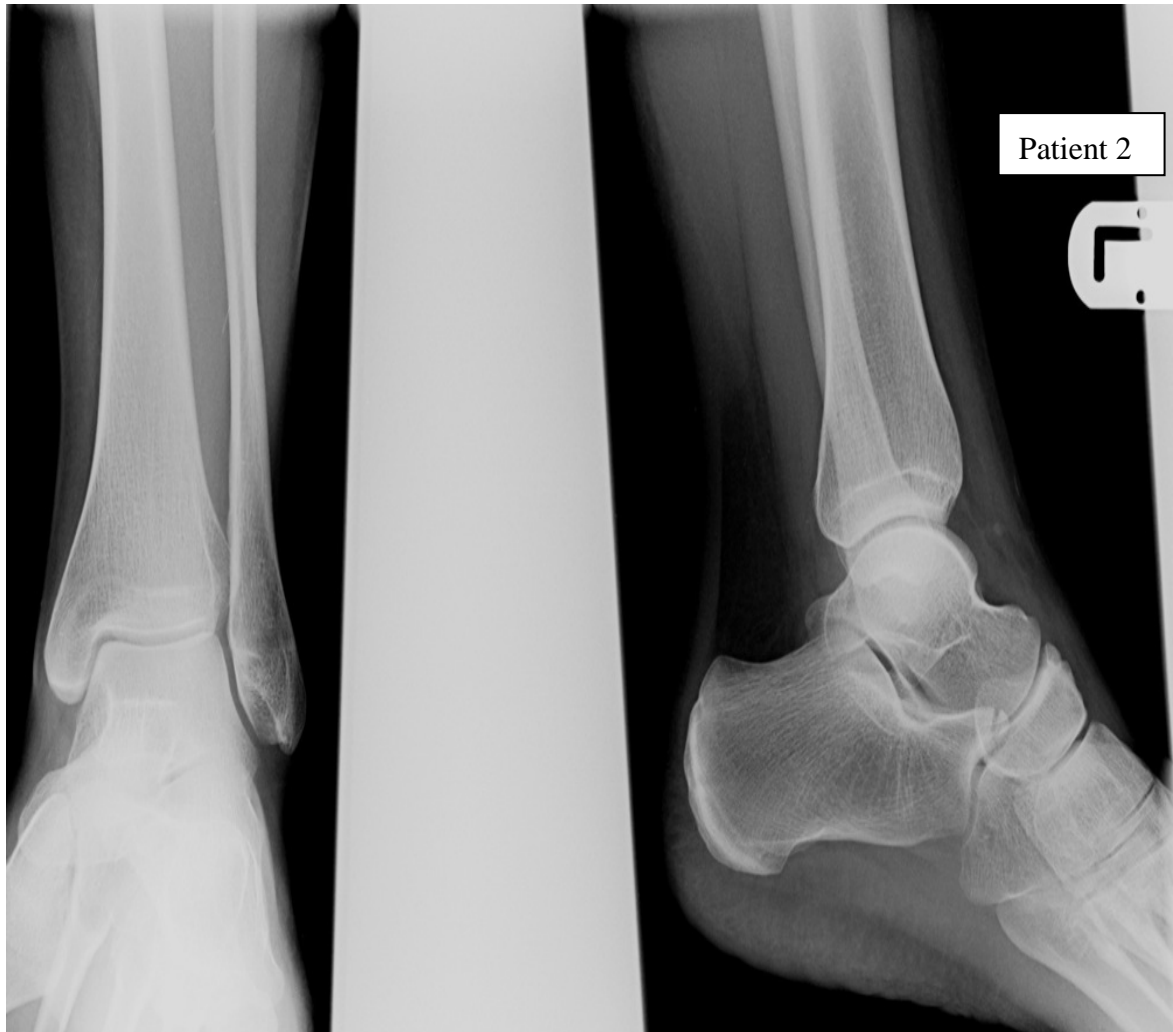
(1) Name the fracture (1 point)

Answer:



(2) Name the fracture (1 point)

Answer:



(3) Name the fracture (1 point)

Answer:



(4) Name the fracture (1 point)

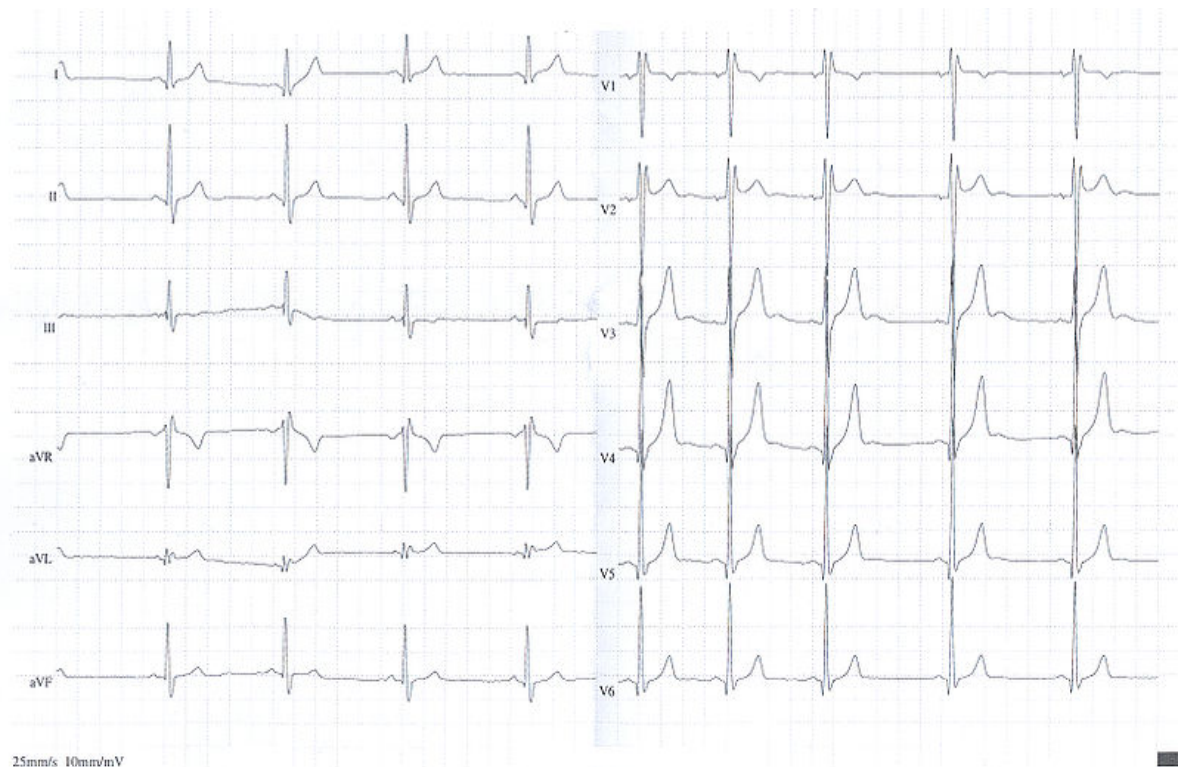
Answer:



Question 4: A 23-year-old woman presents to the emergency department (ED) with a 3-day history of progressively worsening, generalized muscle weakness and vomiting

(1) What does her ECG show (Fig.8)? (1 point)

Answer:



(2) What does the patient's Metabolic Panel show?

Answer:

Na	138 mEq/L
K	1.6 mEq/L
Cl	116 mEq/L
HCO ₃	10 mEq/L
Arterial blood pH	7.25
Urine pH	7.0

(3) The patient also admits to have intermittent haematuria and she has history of renal colic 6 months before presentation.

What does her renal ultrasound show? (1 point)

Answer:



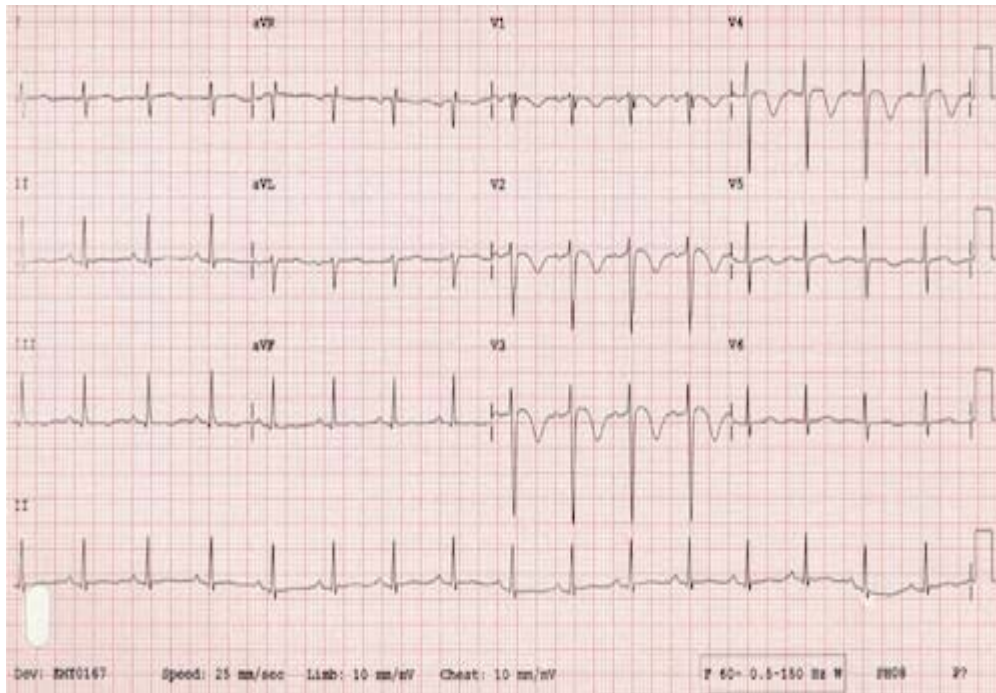
(4) What is the primary disorder in this patient? (1 point)

Answer:

Question 5: A 48-year-old man presents to A&E with retrosternal chest pain for 12 hours. His Cardiac enzymes were normal.

(1) What does the ECG show? (1 point)

Answer:



(2) What is the likely diagnosis in this patient? (1 point)

Answer:

(3) What does this ECG pattern indicates regarding patient's coronary blood flow? (1 point)

Answer:

(4) What is the appropriate and timely management in this condition? (1 point)

Answer: