

Enzyme Case Studies: 1

- A 67 year old male two days after sustaining multiple injuries in a motor vehicle accident complains of chest pain. There is no evidence of trauma to the chest. ECG reveals nonspecific ST wave changes.

total CK - 7600 U/L, CK-MB - 80 ug/L, CK-MB relative index - 1 percent

Does this patient have an MI?

Enzyme Case Studies: 2

- A 60 year old man with a history of stable angina now presents with the acute onset of chest pain at rest. ECG shows ST elevation

Over a 12 hour period the following values were obtained: troponin I - 1.2 to 1.4 ug/L, CK-MB - 2 to 3 ug/L, total CK - 120 to 140 U/L

? Diagnosis

Enzyme Case Studies: 3

A 64 year old male hypertensive type 2 diabetic with chronic renal failure complains of ill-defined epigastric and substernal discomfort for several days.

CK-MB - 7, 6, 6 ug/L, total CK - 230, 210, 225 U/L over 12 hours.
troponin I - 6.2 ng/mL

Enzyme Case Studies: 4a

A 70 year old man with a history of chronic obstructive pulmonary disease is admitted to a hospital with fever and respiratory failure following upper airway infection. The patient is intubated and mechanically ventilated. Blood pressure, central venous pressure and urine output remain normal.

Enzyme Case Studies: 4b

PaO₂ - 26 mm Hg, PaCO₂ - 65 mm Hg,
pH- 7.36, ALP- 85 U/L, AST- 500
U/L, ALT - 700 U/L,
LDH - 1200 U/L,
Bilirubin - 1.0 mg/dL

Enzyme Case Studies: 5a

A 40 year old male complains of weakness, chills and mild upper abdominal pain of three days duration. No previous medical history. No history of medications. Says he drinks only occasionally.

Enzyme Case Studies: 5b

albumin - 3.4 g/dL AST- 140 U/L ALT - 80 U/L, ALP - 320 U/L, GGT- 600 U/L, PT- 17s after vitamin K, LDH - 2400 U/L, Hb - 7.5 g/dL MCV- 120 fL bili - 2.2 mg/dL

Enzyme Case Studies: 6

An 80 year old male transferred from a nursing home because of urethral bleeding.

albumin - 3.0 g/dL, PT- 13s, AST - 60 U/L, ALT - 70 U/L ALP - 1230 U/L, bilirubin - 1.0 mg/dL, LDH- 750 U/L

Enzyme Case Studies: 7

A 65 year old man presents with jaundice that had deepened over a two week period of time. Anorexia and mild intermittent nausea. No medication history. No other medical history of significance.

albumin - 3.3 g/dl, AST - 67 U/L, ALT - 78 U/L, ALP - 650 U/L, GGT - 960 U/L, LDH - 220 U/L, total bilirubin - 13.0 mg/dL, direct bilirubin - 7.6 mg/dL

Enzyme Case Studies:8

A 45 year old woman complains of generalized pruritis. No medication history.

Albumin - 6.3 g/dL, AST - 180 U/L, ALT - 200 U/L, ALP - 800 u/L, Cholesterol - 650 mg/dL, HDL cholesterol - 100 mg/dL, Triglycerides - 200 mg/dL total bilirubin - 4.5 mg/dL, direct bilirubin - 2.7 mg/dL, LDH - 180 U/L

Enzyme Case Studies: 9

A 35 year old woman.

Hb - 6.4 g/dL, MCV - 99 fL, albumin 13.7 g/dL, reticulocyte count - 5.5 percent, uric acid - 11.4 mg/dL, total bilirubin - 2.7 mg/dl, direct bilirubin - 0.3 mg/dL, AST - 73 U/L, ALT - 54 U/L, LDH - 2300 U/L, ALP - 77 U/L, GGT - 34 U/L

Enzyme Case Studies: 10

A 64 year old woman with pain in her right hip.

Albumin - 3.6 g/dL, AST - 34 U/L, ALT - 27 U/L, ALP - 980 U/L, LDH - 170 U/L, total bilirubin - 1.0 mg/dL,