

## Addisons Question

A 67 year old smoker, with COPD, attends ED with an episode of collapse. She has recently lost weight and complained of feeling weak to her husband. On arrival she has a resting BP of 100/60 which drops to 80/38 on standing.

Her initial lab tests are as follows:

Na 125

K 6.2

Urea 7.9

Creat 98

Chloride 105

Bicarb 14

Meds: Ventolin accuhaler prn

Seretide accuhaler bd

Prednisolone 5mg od

(recently reduced from 20mg)

ABG shows a mild metabolic acidosis.

CXR shows a peripheral mass lesion on the right apex.

- 1) What is the likely diagnosis and give 4 possible causes. (3)

***Adrenal Insufficiency (Addisons) due to metastatic Ca Lung(1)***

***Causes: Metastasis, TB, Sarcoid or Cessation of corticosteroids(1/2 each)***

***Primary: Autoimmune, TB, Thrombosis/haemorrhage, Infiltrative diseases***

***e.g.sarcoid, Metastases***

***Secondary: Corticosteroid use, Radiotherapy, Infiltrative e.g. sarcoid, tumours, Head trauma***

***Must have TB and Ca Lung plus 2 others for full 2 marks.***

- 2) The ABG showed mild metabolic acidosis. Calculate the Anion Gap.(2)

$$\text{Anion Gap} = (\text{Na} + \text{K}) - (\text{Cl} + \text{HCO}_3) = 12.2\text{mmol/l}$$

- 3) Give 5 Causes of Metabolic Acidosis with an elevated anion gap. (5)

***Methanol***

***Uraemia***

***DKA, alcohol or starvation***

***Paraldehyde***

***Isoniazid or Iron***

***Lactate***

***Ethylene Glycol***

***Salicylates***