

Gravess disease

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In the first case study, it is most likely that lab test results would show an increase in number of thyroid hormones, because thyroid stimulating hormones receptors and thyrotrophin-releasing hormone receptors would get reduced. Swelling of eyes indicates the likelihood of the patient being diagnosed with Graves's disease, an autoimmune disease, which causes hyperthyroidism ("Clinical Case," 2001). Graves's disease is caused by production of auto antibodies that blocks thyroid stimulating hormones receptors, responsible for regulation synthesis of thyroid hormones. In addition, this patient is also related to a family with a history on autoimmune diseases. There are many ways to treat Graves's disease but in this case, Radioiodine has been found to be safe and efficient. It involves use of iodine radioactive isotopes to induce hypothyroidism which is easy and cheap to treat.

The second case study showed that, endocrine glands that are likely to cause symptoms portrayed by the patient are adrenal glands, kidney, liver, or ovaries. There are also a number of hormones involved: the first one is androgen that is responsible for growth of hair below the abdomen and on thighs, but at higher concentration cause growth in other body parts such as the face in this case. The second one is Cortisol hormone that control metabolism in the liver and muscle fats that led to fatigue and injury of capillaries walls which explain the abdominal pains. The other involved hormones are aldosterone and steroid hormones. Adrenal diseases are associated with adrenal gland problems which may be either primary or secondary. The main different on the two is the impact on the body

functions. A primary gland problem exists when only the gland is affected while a Secondary gland problem affect other body organs such as the liver or the heart. Alterations of these hormones are mostly caused by adrenal insufficiency or high blood pressure (" Clinical Case," 2001).

The patient in the third case study could be diagnosed with hyponatremia characterized by the low serum sodium, unconsciousness, and muscle weakness. Low sodium test would be caused by atrial tension from increase of pressure on central nerve stimulating production of atrial natriuretic peptide which hinders reabsorption of Na^+ back into the blood stream (" Clinical Case," 2001). However, normality in potassium levels, Cl^- levels and HCO_3^- levels on lab results shows that the patient was undiagnosed for some years. High glucose levels and absence of ketones in the urine would suggest kidney failure or failure to synthesis proteins involved in uptake of sodium. Pneumonia is a respiratory disease and could not have contributed to patient's previous state.

In the forth case study, Mr. Metzener's aldosterone hormones are being produced in excess hence resulting to more excretion of sodium. Therefore, to try and balance salt and water levels in the blood, the body needs a lot of water which explains his polyuria condition. Some of aldosterone hormone alteration causes would be initiated by either nervous tension or excessive extracellular fluids (" Clinical Case," 2001). Secretion of excessive extracellular fluids would raises water levels in the blood stream triggering production of excessive aldosterone hormones for an equal production of Na^+ .

The condition in the fifth case study is known as hyponatremia characterized

by hyper production of aldosterone hormone. Aldosterone hormone is produced by the adrenal gland. This case differs with that of Mr. Metzener because there are no signs of depletion of fluids or excess extracellular fluids. Therefore, the other likely cause of alteration on the hormone could be never tension (" Clinical Case," 2001).

Reference

n. a. (2001). Clinical Case. Retrieved from [http://www. ncbi. nlm. nih. gov/books](http://www.ncbi.nlm.nih.gov/books)