

**“ Not Another Bloody Case of Low Sodium ! ”**

Dr S Arshad (SpR), Dr D Barnes (Consultant)  
Dept. of Diabetes & Endocrinology, Tunbridge Wells Hospital, Kent

**Case Report**

An 82 year old man was admitted to hospital with lethargy, anorexia and back pain. His past medical history included chronic lymphocytic leukaemia (which was in remission) and hypertension. Blood tests revealed a serum sodium of 115 mmol/l and potassium of 5.4. His Irbesartan was discontinued and sodium rose to 126 prior to discharge. He was readmitted to hospital 6 days later with hyponatraemia (116 mmol/l). A short Synacthen test was performed which showed a flat response (baseline cortisol 282 nmol/l with a 60 minute post-Synacthen level of 265). ACTH level was raised at 400 pg/ml (normal < 46). He was commenced on hydrocortisone replacement therapy and felt much improved. A CT scan of the abdomen showed large bilateral adrenal masses (4.9 x 3.5 cm on the right, 9.2 x 6 cm on the left) (Figure 1), small para-aortic lymph nodes and multiple hepatic metastases (Figure 2). A subsequent biopsy of the left adrenal mass showed features consistent with a high grade B-cell non-Hodgkin's lymphoma.

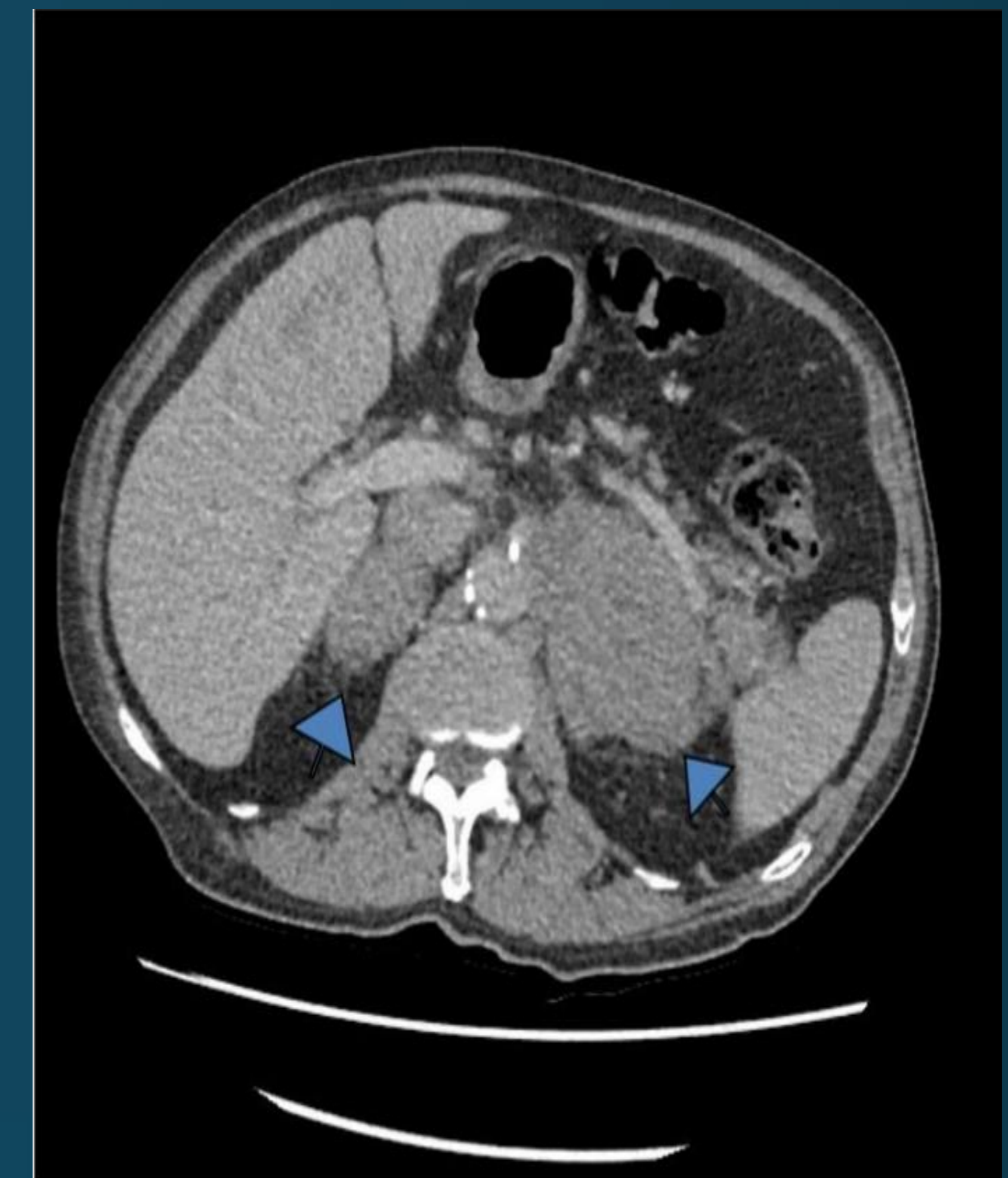


Figure 1. CT scan: adrenal masses

**Discussion**

Patients with malignancy are prone to adrenal dysfunction, but this is often subclinical and associated with non-specific symptoms. More than 90% of the adrenal cortex has to be lost before symptoms of chronic adrenal failure manifest.<sup>1</sup> Common cancers, which metastasise to the adrenals, include lung, breast, stomach, kidney, pancreas and colon cancers.<sup>2</sup> Haematological malignancies are also known to cause adrenal insufficiency as in our case. Lymphoma and leukaemic infiltration are examples of these. The incidence of adrenal involvement in non-Hodgkin's lymphoma is estimated to be between 0.8-2%.<sup>3</sup> Prognosis is poor for this condition despite chemotherapy, with a median survival time of 4 months.<sup>4</sup>

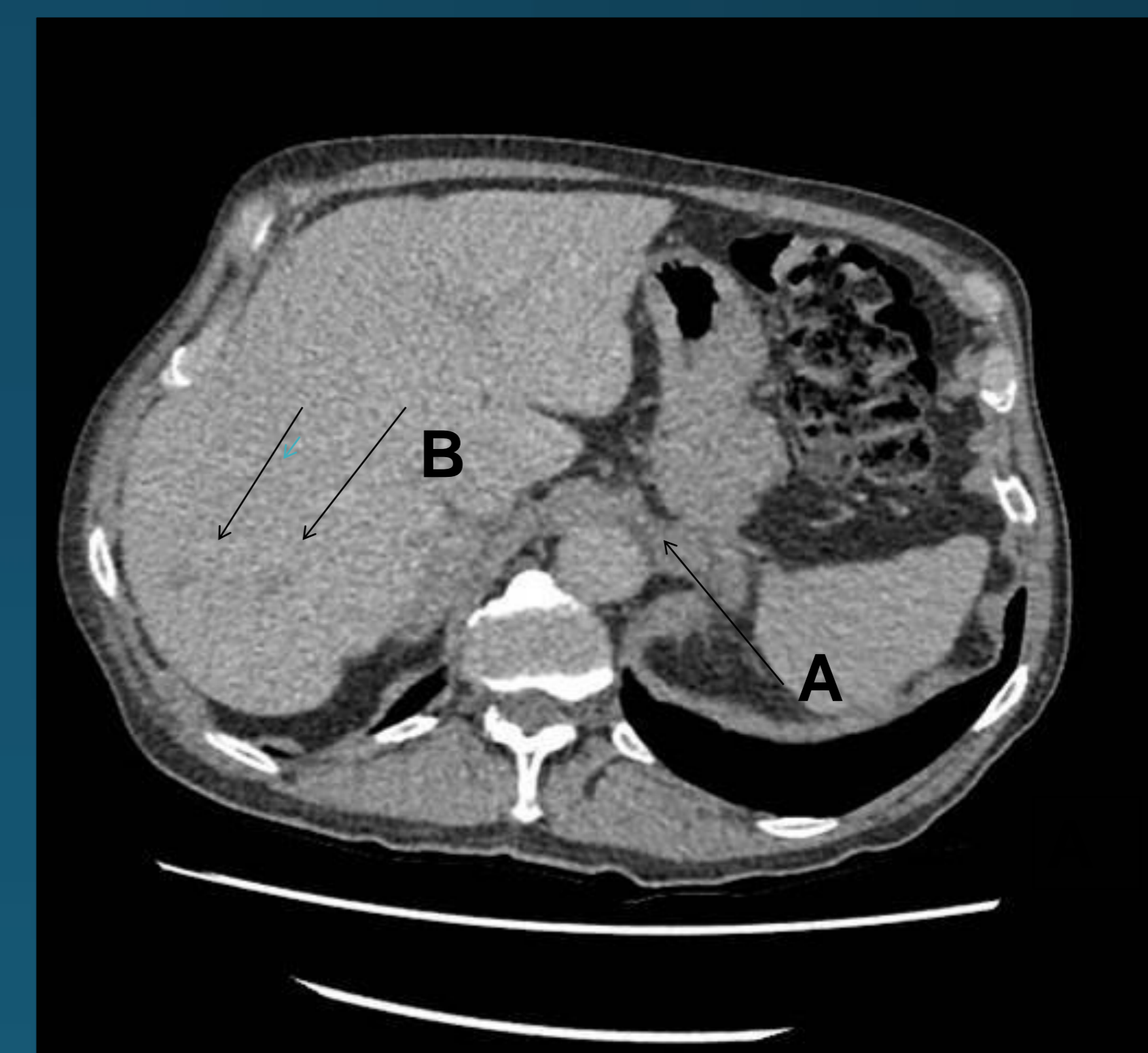


Figure 2. CT scan: para aortic lymph nodes (A) and hepatic metastases (B)

**Conclusion**

Although autoimmune adrenalitis is the most common cause for primary adrenal insufficiency in the developed world, malignancy should be considered as an underlying cause, especially in the elderly.

**References**

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