

An interesting case of hyponatraemia associated with autoimmune limbic encephalitis

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INTRODUCTION

Limbic encephalitis is characterised by seizures, changes in personality and memory impairment. It has long been considered a paraneoplastic phenomenon but autoimmune cases are being increasingly reported. Syndrome of inappropriate antidiuretic hormone secretion (SIADH) associated with autoimmune limbic encephalitis is rare. We present an interesting case.

CASE

A 57-year-old gentleman presented with seizures and a cardiac arrest. He had a past history of excess alcohol intake and had been taking excess alcohol prior to this event. Physical examination was unremarkable. His serum sodium was slightly low. He was treated for alcohol-related seizures, counselled concerning his alcohol intake and discharged to his general practitioner for serum sodium monitoring. He was readmitted twice thereafter with further seizures, visual hallucinations and chronic hyponatraemia. Further history revealed that he had experienced behavioural changes and memory impairment a few weeks prior to his initial presentation.

INVESTIGATION AND MANAGEMENT

Initial investigation revealed chronic hyponatraemia (127mmol/L), hypo-osmolality (264mOsm/Kg), raised urinary sodium (82mmol/L) and inappropriately raised urine osmolality (498mOsm/Kg): all suggestive of SIADH. His renal, thyroid and adrenal function tests were normal. A CT scan (chest-abdomen-pelvis) revealed no underlying cancer and a paraneoplastic antibody screen was negative. MRI brain scan demonstrated hyper-intensity and left hippocampus swelling on fluid-attenuated inversion recovery (FLAIR) images (Figure 1). Cerebrospinal fluid assay detected Leucine-rich, glioma Inactivated 1 (LGI1) antibodies. This features were suggestive of autoimmune limbic encephalitis. He was commenced on fluid restriction for hyponatraemia, Levetiracetam for seizures and oral prednisolone for encephalitis. However, slow improvement prompted the need for intravenous Methylprednisolone and five plasma-exchange sessions. His sodium levels (Table 1) normalised accompanied by significant improvement in cognition and confusion. He remains on a maintenance dose of prednisolone.

Figure 1

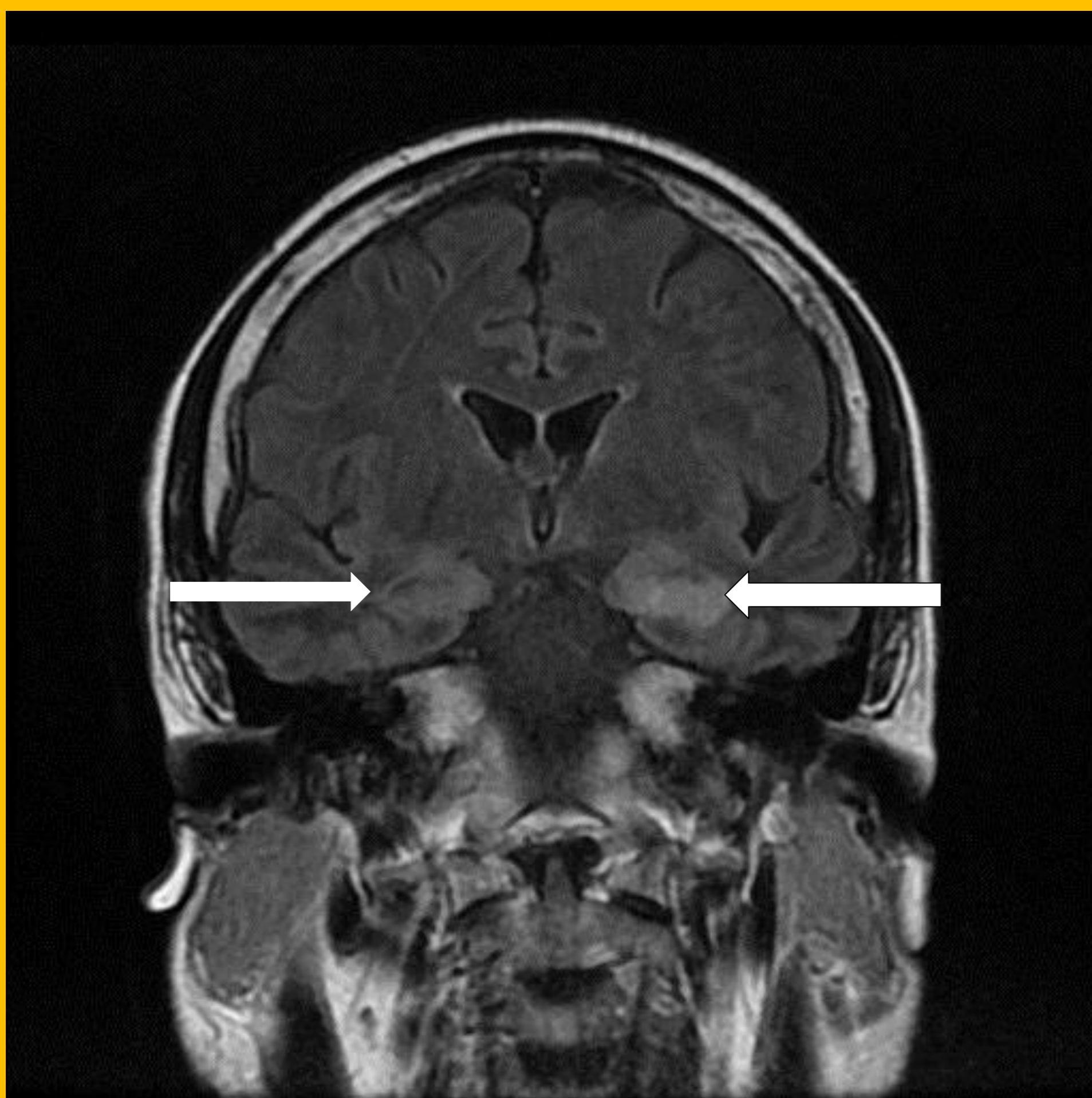
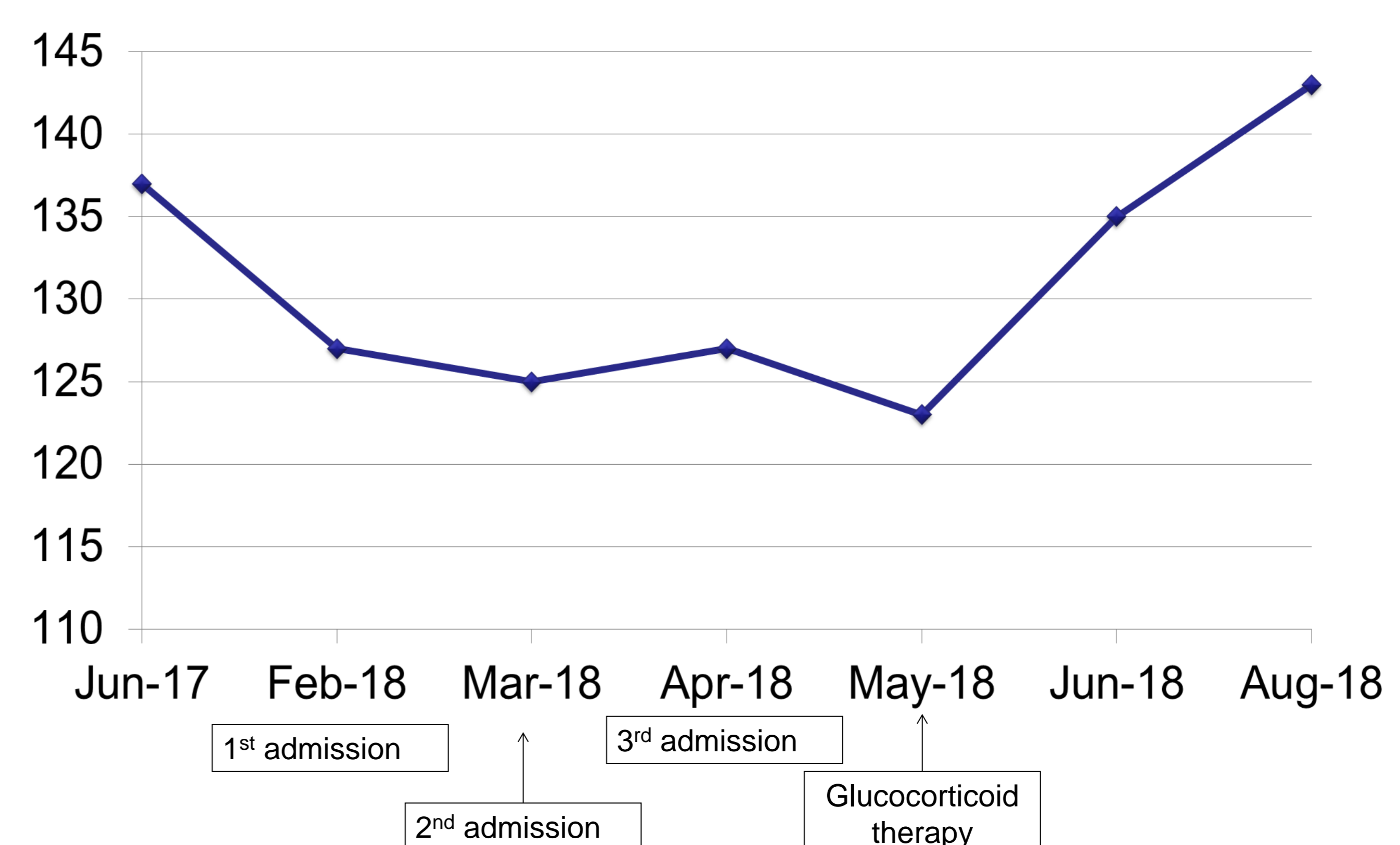


Table 1

Serum sodium levels



DISCUSSION

Autoimmune limbic encephalitis is reportedly more common than once thought and should be suspected in patients presenting with unexplained neurological symptoms and seizures. Urgent specialist referral for immunomodulatory therapy is required to reduce morbidity and mortality.