Terlipressin infusion as a bridging therapy to OLT (Orthotropic Liver Transplantation)

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Introduction

Terlipressin is used to treat hepatorenal syndrome in end stage liver disease. Traditionally some patients may have required ongoing terlipressin for bridging towards OLT. This was administered via IV bolus doses and managed as an inpatient. These patients will then remain on terlipressin until their transplant (which can be upwards of 2 weeks). We report the first case of using terlipressin as an infusion in New Zealand and management of hepatorenal syndrome in the outpatient setting.

Case description

A 49 year old Caucasian male (GW) transferred to Auckland hospital with end stage liver disease and worsening renal function was diagnosed with hepatorenal syndrome awaiting OLT. GW was initially started on 1mg of terlipressin every six hours given as IV boluses with albumin. On admission his serum creatinine was elevated to 340µmol/L (baseline 120-130µmol/L) and subsequently decreased and stabilised to 130µmol prior to discharge. GW was then discharged on terlipressin infusion at 4mg over 24 hours via an elastomeric pump and subsequent serum creatinine remained stable at around 130µmol/L for the next four days before he received a liver transplant.

Discussion

This case illustrates the first reported use of terlipressin infusion in an elastomeric pump for the management of hepatorenal syndrome as an outpatient. Cases have been reported from Australia regarding terlipressin infusions via conventional devices, offering patients limited ability to perform activities of daily living. Though the total duration of infusion was short, it is clear GW's serum creatinine did not deteriorate further and he did not experience any adverse effects.

Conclusion

This is a novel approach to patients requiring ongoing terlipressin prior to OLT, and it will be developed into a protocol for future liver transplant patients. The advantages of this approach include cost savings, release of nursing time and hospital beds, and reduced risks associated with prolonged hospital stay.

What has lead to this: a case of heavy metal poisoning

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Introduction

Heavy metal toxicity is an uncommon but potentially lethal event. A contributing factor is the self-administration of unregulated Ayurvedic medications (Indian herbal medication) that may contain significant concentrations of heavy metals. (1) This report describes an incident of chronic lead poisoning secondary to long term Ayurvedic medication use and the procurement of its antidote.

Case description

Mrs X, a 40 year-old Fijian Indian female presented to hospital with biparietal headache and high lead levels following chronic use of ayurvedic medicines for essential tremor management. No other obvious source of lead exposure was noted. Treatment with IM dimercaprol and sodium calcium EDTA was commenced in hospital however stock was limited. Given the patient was asymptomatic, treatment was changed to PO succimer as per toxicologist advice. The choice and procurement of antidote agents required significant teamwork and liaison between DHBs. Succimer was supplied to the patient along with medication counselling on discharge to ensure completion of course. Public health unit was notified for further community follow up whereby repeat blood levels ultimately showed response to treatment.

Discussion

Mrs X's case exposes the potential for ingestion of lead-containing ayurvedic medication to cause lead poisoning. A myriad of toxicity related symptoms may occur including vomiting, headaches, anaemia, renal insufficiency, neurological changes, and blue discolouration of the gums. (2) The course of treatment is determined by blood lead levels along with patient symptoms. The antidote –which is usually of limited stock – would need to be sourced in an efficient manner to complete an entire course.

Conclusion

This case demonstrates the importance of timely, sound management of lead toxicity that may potentially be fatal. It also highlights the need for readily available antidotes and the importance of knowing what different options of therapy are available to us. Currently, a registry of antidotes throughout the country is not available – should this be done?

References

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