

## EV0049

### Intramuscular ketamine in depression, suicidal thoughts and anxiety: A report on two cases

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**Introduction** Several studies have shown that ketamine, an antagonist of NMDA receptors, represents a promising alternative in the treatment of depression. The therapeutic use of ketamine, commonly used at a dose of 0.5 mg/kg, and in a single application IV has been short and requires monitoring in a hospital setting. IM use has been shown to be effective in treating depression and suicide risk, and have low side effect profile.

**Methods** Two patients diagnosed with bipolar depression and suicide risk were submitted to ketamine IM application (0.75 mg/kg), receiving one application of ketamine IM every two days, totaling 4 applications. Patients were under medical monitoring for 2 hours after injection verifying vital signs and potential side effects. Responses were measured using BDI, BAI and BSI.

**Aim** To evaluate response of ketamine IM injections on depressive, suicidal and anxious symptoms.

**Summary** Case 1: female, 20 years old, single with three recent suicide attempts, symptomatic for two months. Started lithium 450 mg daily. Side effects of ketamine were nausea, drowsiness and paresthesia. Case 2: female, 24 years old, single with symptoms lasting for six years. Started aripiprazole 5–10 mg and 25 mg lamotrigine concomitantly. Side effects of dry mouth, dizziness and dissociation.

**Conclusions** The use of ketamine IM showed reduction of 75.5%–83.3%–85.7% (case 1) and 71.4%–77.2%–60.8% (case 2) in BDI, BAI and BSI, respectively as well as safety and tolerability in use.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## EV0050

### Reversible cognitive impairment associated with a high free fraction but subtherapeutic total blood level of valproic acid due to hypoalbuminemia in a bipolar patient

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Valproic acid (VPA) is widely used in the treatment of epilepsy and bipolar disorder. It is largely bound to serum proteins (80–95%) in particular albumin, with a saturable binding capacity. Under conditions of hypoalbuminemia, protein binding of VPA will decrease and its pharmacologically-active free fraction will rise, even to toxic levels while measuring subtherapeutic VPA total blood levels [1].

We present an elderly bipolar patient with (sub)clinical total levels of VPA and a high free fraction of VPA due to hypoalbuminemia (14–24 g/L) leading to severe reversible cognitive impairment.

VPA and the free fraction in particular, was the most likely cause of the cognitive impairment [2]. There was a time-correlation with increasing blood levels of total VPA (68 mg/L, reference 80–120 mg/L [3]), notably the free fraction (37.5 mg/L, reference 5–15 mg/L), and the intoxication.

For therapeutic drug monitoring in laboratories, generally, total VPA concentrations (free + protein-bound) are measured instead of

free fractions, due to technical difficulties, a lack of established reference ranges [4] and (inter)national guidelines [5,6] not requiring it. This presentation and literature points out that it is clinically relevant to measure the free fraction [7,8], especially in patients with hypoalbuminemia [9–11] to prevent unnecessary side effects and toxicity.

We recommend measuring albumin during VPA use; particularly in patients with nephrotic syndrome, liver disease [12] or older adults [13–15]. Hypoalbuminemia demands a free fraction measurement.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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## EV0051

### Care pathways for patients with bipolar disorders at Psychiatry Clinic Affektiva, Gothenburg: Identifying and solving issues for a more efficient and safe care

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**Introduction** The Psychiatry Clinic Affektiva has developed a care pathway for patients with bipolar disorder (BD). It consists of one outpatient clinic and two inpatient wards. Clinical observations suggest that patients with BD benefit from treatment in a dedicated unit with tailored care programs and that better outcomes are achieved in terms of reduced average length of stay and safer transitions to outpatient care for this group.

**Aims** The aim is to improve the care of bipolar patients by increasing bed-availability and overall continuity in the care pathway and monitoring core aspects in the management of outpatients in order to reduce admissions and to facilitate standardized treatment and collaboration between in- and outpatients unit.

**Method** We developed a structure to monitor and measure specific outcomes such as readmission within 28 days, relapse within 12 months and the use of lithium in this group. We also developed a standardized care protocol in order to improve the safety and the equality.

**Results** At this stage our preliminary results from our efforts are promising but further monitoring is needed to confirm our hypothesis. More data will be collected during 2017.

**Conclusions** Affektiva Psychiatry Clinic has developed a model for continuously monitoring several essential aspects in the care of patients with BD and providing a specific care program.

**Disclosure of interest** The authors have not supplied their declaration of competing interest.

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