

## ORAL PRESENTATIONS

### [ID-O#104] Association of the OPRM1 variant rs1799971 (A118G) and clinical manifestations in tramadol poisoned patients: A cross-sectional study

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**Background:** The opioid receptor mu1 is a protein coding gene that can have different codes for a protein and may have variations (polymorphisms) affecting how opioids work. The aim of this study was to investigate the prevalence of the most common opioid receptor mu1 polymorphism (A118G) and any relationship between this polymorphism and features following tramadol overdose.

**Methods:** This was a cross-sectional study of patients admitted with tramadol poisoning to an Iranian hospital. These patients were not taking any other drugs or medications and had no history of seizures.

**Results:** The results showed that among the 83 patients included in the study, 57 (69 per cent) had the AA genotype, 25 (30 per cent) had the AG genotype, and one (1 per cent) had the GG genotype for the opioid receptor mu1 A118G polymorphism. There was no significant association between the opioid receptor mu1 A118G polymorphism and symptoms in tramadol-poisoned patients. Nausea and/or vomiting occurred in nine (11 per cent) patients and dizziness in 38 (46 per cent) patients. Serious adverse events included seizures in 51 (60 per cent) patients and respiratory failure requiring mechanical ventilation in 21 (25 per cent) patients. However, there was no significant association between the opioid receptor mu1 A118G polymorphism and these adverse events.

**Conclusions:** This study found no significant association between the opioid receptor mu1 A118G polymorphism and adverse outcomes in tramadol-poisoned patients. However, more research is needed to draw more definitive conclusions due to the limited evidence and variability of opioid receptor mu1 polymorphisms in different populations.