



## OP04

### Dermatologic and Muscular Features of Chronic Abuse of Ketamine with Intramuscular Injections; A Case Report

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#### Objective

There are few reported cases of chronic intramuscular ketamine injection in humans. We present a case of skin atrophy, sclerosis, and scarring at the site of repeated injections of ketamine into the gluteal area.

#### Case report

A 33-year-old female with a history of polysubstance abuse was admitted to the toxicology ward, due to suicidal drug poisoning. In past medical history she had no medical disease. There were multiple round, brown and atrophic necrotic lesions in the context of symmetrical bilateral sclerosis and atrophy of the superolateral buttocks. She reported injecting 150 mg ketamine intramuscularly for 3.5 years for visual hallucination, initially with an insulin syringe in three 1-ml shots, which was then changed to 2-mL syringe due to skin thickening in the area. After two years, necrotic lesions appeared on thickened skin and were easily removed. Gluteal muscular mass had gradually been lost in the superolateral aspect following muscle necrosis and was replaced by bilateral hyperpigmented sclerotic plaques.

#### Conclusion

Ketamine is euphoric and dissociative in low doses whereas at high doses, it is immobilizing and hallucinogenic. It is sold illicitly in pill, powder, and liquid forms, and may be swallowed, drunk, smoked, sniffed, and injected intravenously or intramuscularly. Dermatologic effects of long-term intramuscular injection of ketamine have not been reported, to date. In a recently published review by Short et al. On 60 studies of ketamine poisoning in humans, no case of dermatologic complications was reported by the authors even in the three studies which involved patients abusing intramuscular ketamine injections. Injection site sclerosis has been reported with some medications including vitamin K, vitamin B12, silicone or paraffin implants, interferon- $\beta$ , bleomycin (intralesional therapy), and opioids (e.g., pentazocine, ketobemidone, methadone).