


A VERY VILE KROKODIL

A homemade injectable desomorphine concoction goes by the street name krokodil,¹ alternatively dubbed 'Russian magic.' Desomorphine is an opiate derivative. Krokodil has also been referred to as 'the drug that eats junkies.'²

This can be made for recreational purposes from a cocktail including ingredients obtained over the counter, notably codeine and other additives such as iodine, and red phosphorus from match striking surfaces. Given the illicit nature of the brews, it may have varied constituents and complexities in chemical composition with both different metabolites and contaminants.³

Drug addicts generally switch from heroin to krokodil due to financial reasons given that it is cheaper.⁴ In 2017 a study by Soares et al detected 54 morphinans which may potentially play a role in krokodil's psychotropic action.⁵ Another analysis deemed that desomorphine is present as the major compound together with two other morphinans.⁶ It is best known as originating in Russia.⁷ It may cause skin necrosis⁸⁻¹⁰ as part of krokodil's 'nasty bite' with the appearance similar to scaly discoloured 'crocodile skin'.¹¹ Osteonecrosis of the maxilla is common with krokodil.¹²⁻¹⁴ Fatal endomyocarditis has also been reported.¹⁵

Other effects include gangrene, ulceration and infection. There is a high mortality with its use.¹⁶⁻¹⁷ Although krokodil is generally injected intravenously, in 2016 Baquero et al reported a case where krokodil had been ingested orally.¹⁸ In recent years, experiments on rat models were carried out showing altered biochemistry, in keeping with its toxicity and probable oxidative stress which is caused. Biochemical findings showed changes in creatinine kinase and uric acid, as well as glutathione levels.¹⁹ Patterns of internet searches on the topic of this drug have also been studied. Infoveillance studies can be seen as novel approaches for the monitoring of illicit drug use.²⁰⁻²¹ 

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