
STANDARD OPERATING PROCEDURE

Djenkol Bean Toxicity (Djenkolism)

Special Region (1)
Union of Myanmar

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Approved by: Internal Medicine Unit

Introduction

Djenkol bean poisoning sporadically occurs after ingestion of raw or prepared djenkol beans in a variety of ways. Some reports state that djenkolism has a seasonal incidence, with the peak incidence being between September and January, which corresponds with the rainy season and the blossom time of djenkol beans. The djenkol bean contains a large amount of the djenkol acid in the range of 0.3-1.3g/100g wet weight.

It is one of the important causes of tropical diseases and considered as an uncommon but important cause of acute kidney injury in our country.

The pathogenesis of acute kidney injury following djenkol ingestion is not well understood.

Clinical Features

- Abdominal or loin colicky pain
- Passing of milky or turbid urine
- Dysuria
- Oliguria and anuria
- Haematuria
- Hypertension

Symptoms onset occur 2 hours to 4 days after ingestion.

Investigation

- Serum urea and creatinine – raised level in acute kidney injury
- Serum electrolytes
- Urinalysis – haematuria and needle-shaped crystals
- Ultrasound abdomen – hydronephrosis can be seen

Treatment

The majority of cases resolve within 3 days with supportive care:

- **Analgesic** – oral or IV paracetamol 500 or 1000 mg 4 times per day and/or oral or IV tramadol 50 mg as necessary. NSAIDs should not be used because of nephrotoxicity.

- **Aggressive hydration** – oral fluid or intravenous fluid
- **Alkalinization of urine** with sodium bicarbonate (soda mint 300 mg to 2 g 1–4 times per day) or carbonated beverages
- Surgical intervention is rarely necessary

References

- [1] Bunawan NC, Rastegar A, White KP, Wang NE. Djenkolism: case report and literature review. *Int Med Case Rep J*. 2014 Apr 16;7:79-84. doi: 10.2147/IMCRJ.S58379. PMID: 24790471; PMCID: PMC3998865.