

Epidemic Proportions: Dosing Ketamine in the Era of Mamba Dramas

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Welcome to Colorado!



- Land of the LEGAL high!





Free Weed!



Record Girl Scout Cookie Sales!



Your Tax Dollars at Work!

- Special thanks to
 - Corey Slovis
 - Brent Myers
 - Paul Hinchey
 - Ray Fowler
 - Drew Harrell





Granny's Smokin The Weed





Impact of Legalized Marijuana on EMS?

- ❉ None!
- ❉ We have been high for decades



Weed

- ⦿ But!
- ⦿ We are easily confused
- ⦿ This is weed



This is Not!

❀ Synthetic Cannabis



Black Mamba





the Black Mamba

Contains over 10g of cannabis dried weight.

EXTREMELY POTENT. ONLY FOR PATIENTS WITH EXTREME PAIN.

KEEP OUT OF REACH FROM CHILDREN AND PETS!

Ingredients: Brown Sugar, Cocoa Powder, Flour, Eggs, Cannabis Butter, Salt.

Synthetic Cannabis



Colfax

- ❁ CDC determined epicenter of Black Mamba



Extreme Agitation



Black Mamba



Prehospital Ketamine

- ❁ Implemented at the height of the black mamba epidemic



Ketamine

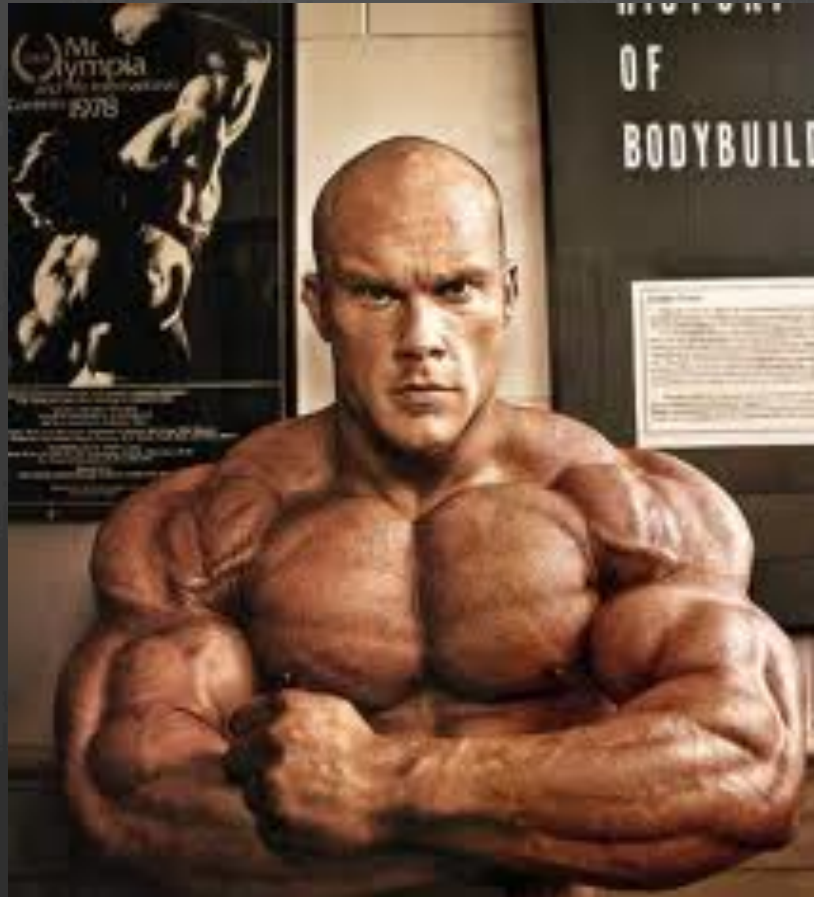
- ⦿ Prehospital indication
 - ⦿ Extreme agitation placing the patient and providers at substantial risk
 - ⦿ Paramedic judgment



Here is your help



Here is your patient

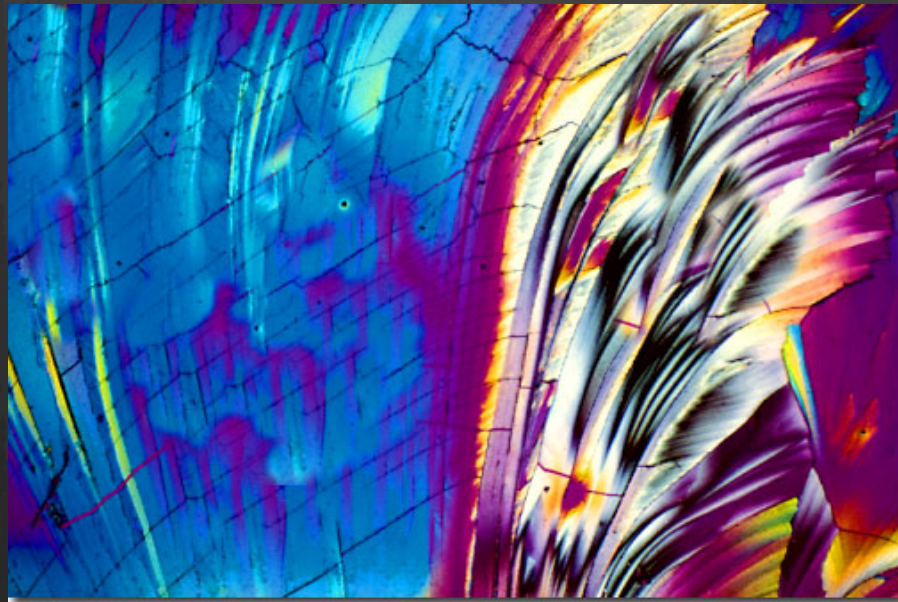


Here is you



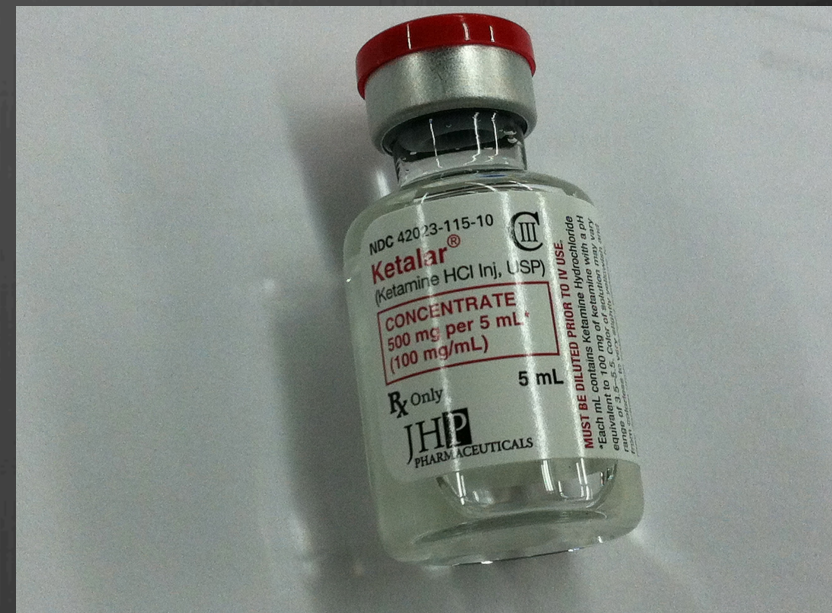
Ketamine

- ❁ Prehospital
 - ❁ Getting more attention
 - ❁ Burnett AM et al, Prehosp Emerg Care 2012
 - ❁ Ho et al, Prehosp Emerg Care 2013



Ketamine

- ❁ Dissociative anesthetic
- ❁ Same drug class as PCP
- ❁ Properties
 - ❁ Analgesia
 - ❁ Anesthesia
 - ❁ Hallucinogen
 - ❁ Bronchodilator



Protocol

- Dose:
 - 5 mg/kg IM
 - 100 mg/ml concentration
- Coordinated effort
 - Training with Fire first-response and Denver police



Results

- ⦿ 40 uses
 - ⦿ 27 Synthetic cannabis cases
 - ⦿ 33% intubated
 - ⦿ 48% prior to initiation of Ketamine
 - ⦿ No intubations other than synthetic weed



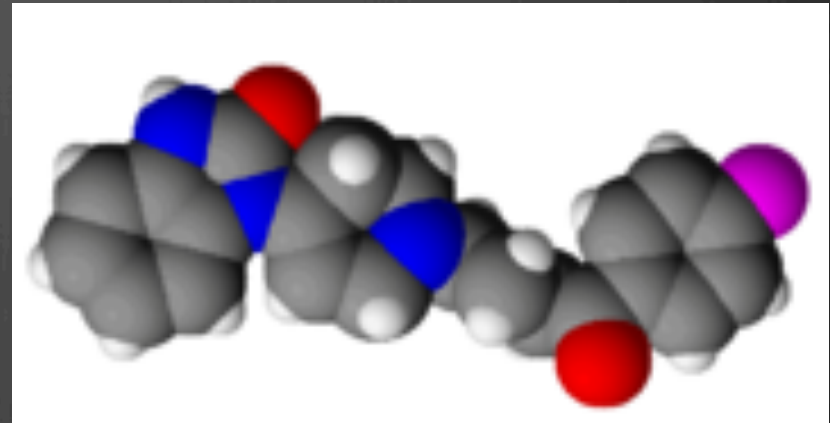
Results

- 16 discharged from the ED
 - 14 others discharged in < 24 hours
- Higher intubation rates when we led with midazolam



Droperidol is Still King!

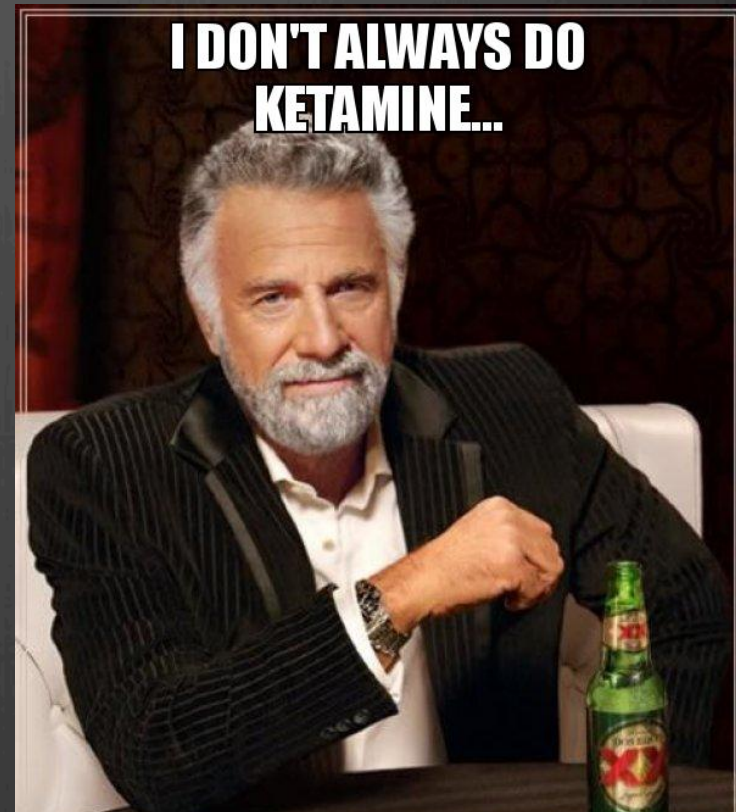
- Very effective
 - Successful sedation
 - Few treatment failures
 - No respiratory insufficiency
 - Hick et al, Prehosp Emerg Care 2001



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Conclusions

- ❶ We don't need it often, but when we do, it works well



In Summary!

