

IL PAZIENTE AGITATO SUL TERRITORIO

LA KETAMINA COME AGENTE DI CONTENZIONE FARMACOLOGICA

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C.O. SUEM 118 Mestre-Venezia

NAPOLI 19/11/2016



fabrizio de andré

non al denaro non all'amore né al cielo

*Tu prova ad avere un mondo nel cuore
e non riesci ad esprimerlo con le parole*







White Paper Report on Excited Delirium Syndrome

ACEP Excited Delirium Task Force

2009

White Paper Report on Excited Delirium Syndrome

ACEP Excited Delirium Task Force

It is the consensus of the Task Force that ExDS is a unique syndrome which may be identified by the presence of a distinctive group of clinical and behavioral characteristics that can be recognized in the pre-mortem state. ExDS, while potentially fatal, may be amenable to early therapeutic intervention in some cases.

White Paper Report on Excited Delirium Syndrome

ACEP Excited Delirium Task Force

**Table 1: ExDS Prehospital Potential Features and
Frequencies with 95% Confidence Intervals**

<u>FEATURE</u>	<u>FREQUENCY % (95% CI)</u>
Pain Tolerance	100 (83-100)
Tachypnea	100 (83-100)
Sweating	95 (75-100)
Agitation	95 (75-100)
Tactile Hyperthermia	95 (75-100)
Police Noncompliance	90 (68-99)
Lack of Tiring	90 (68-90)
Unusual Strength	90 (68-90)
Inappropriately Clothed	70 (45-88)
Mirror/Glass Attraction	10



Guidelines for the Management of Excited Delirium / Acute Behavioural Disturbance (ABD)



Independent Advisory Panel on
DEATHS IN CUSTODY

May 2016

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Acute Behavioural Disturbance (ABD) is the accepted terminology adopted by the UK Police Forces, the Ambulance Services and the Faculty of Forensic and Legal Medicine². It describes the sudden onset of aggressive and violent behaviour and autonomic dysfunction, typically in the setting of acute on chronic drug abuse or serious mental illness. However, there is not yet a common standardised definition and its incidence has not been clearly quantified.

ABD, or as it is also known 'Excited Delirium,' is the presentation of features of "acute delirium" and hyper-adrenergic autonomic dysfunction and must be considered a medical emergency. Its presentation is associated with sudden death in approximately 10% of cases³.

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Differential Diagnoses of ABD

- Heat Stroke
- Neuroleptic Malignant Syndrome
- Serotonin Syndrome
- Thyroid Storm
- Sepsis

- Substance intoxication / withdrawal
- Hypoxia
- Hypoglycaemia
- Head Injury / Seizures
- Akathisia









Special

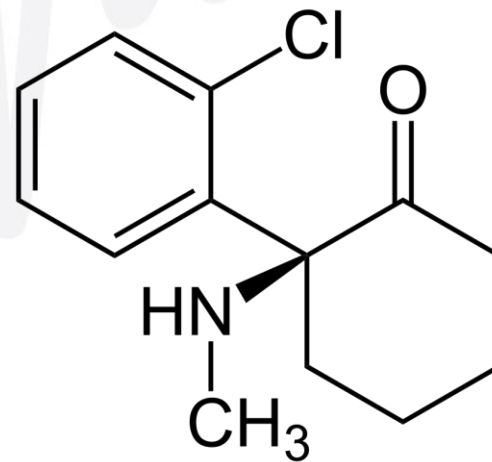
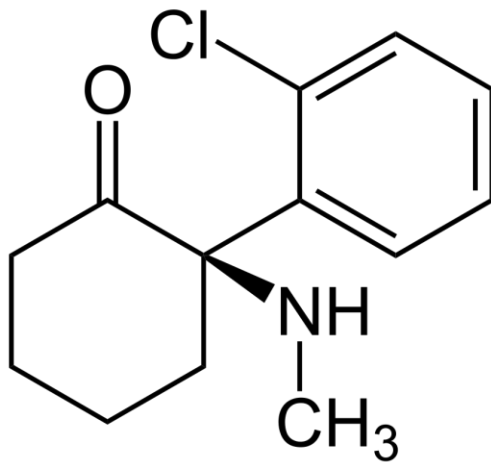


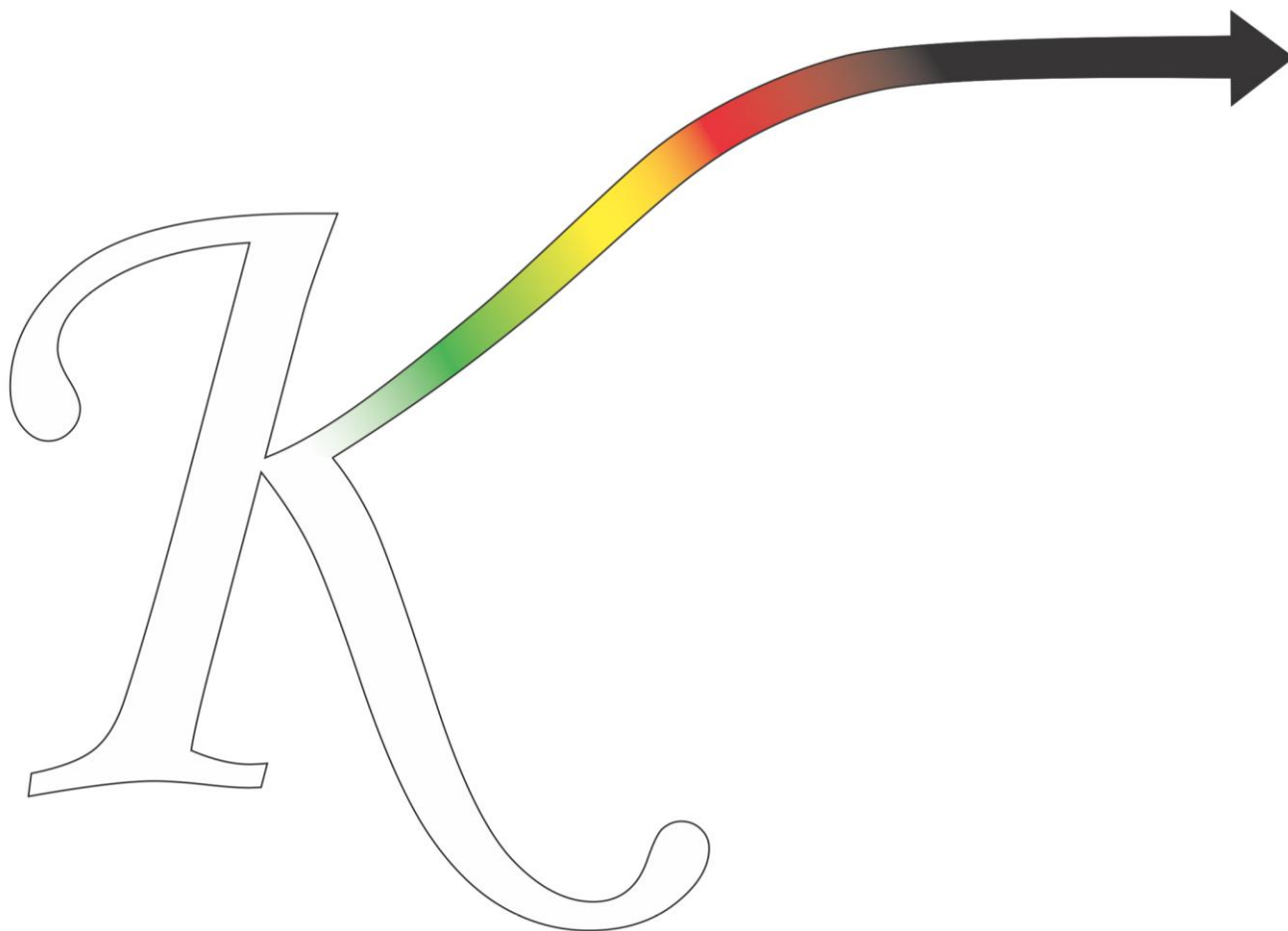
KETAMINA

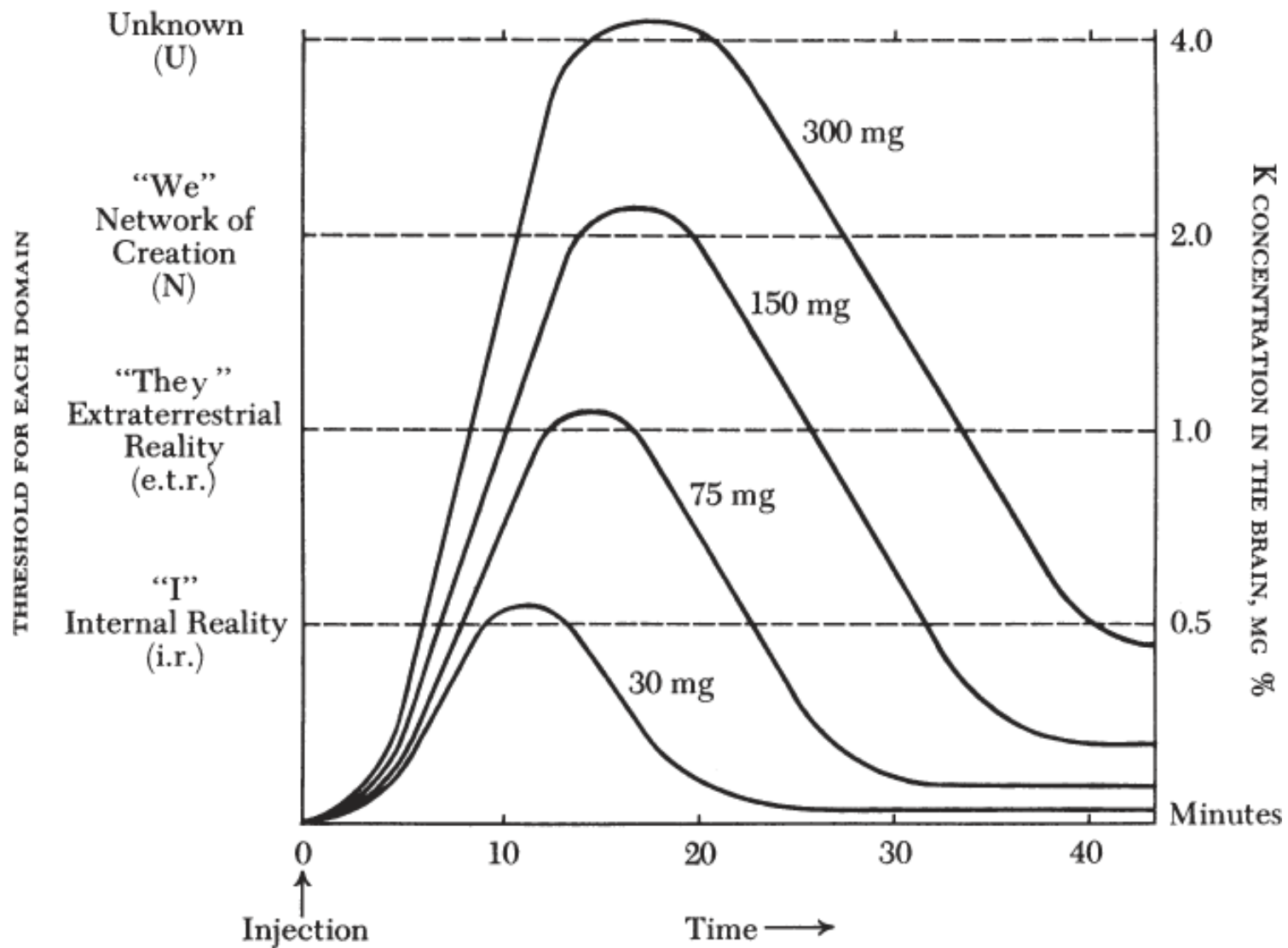
- Anestetico dissociativo (inibizione sistema talamo-corticale)
- Allucinogeno ad uso ricreativo (attivazione sistema limbico)
- Mantiene i riflessi profondi (incluso faringeo)
- Inibizione ricaptazione catecolamine

KETAMINA

- Molecola chirale
- Miscela racemica la più usata in Italia
- Miscela Levogira (Ketamina levogira - Ketanest) doppia potenza anestetica







From The Scientist: A Metaphysical Autobiography; John Lilly, MD (1997)



THE USE OF PREHOSPITAL KETAMINE FOR CONTROL OF AGITATION IN A METROPOLITAN FIREFIGHTER-BASED EMS SYSTEM

David Keseg, MD, Eric Cortez, MD, Douglas Rund, MD, Jeffrey Caterino, MD, MPH

PREHOSPITAL EMERGENCY CARE JANUARY/MARCH 2015 VOLUME 19 / NUMBER 1

Setting: Preospedaliero

Popolazione: pazienti con agitazione psicomotoria sedati con ketamina (valutazione retrospettiva) (n=35)

Intervento: Ketamina 4 mg/kg IM o 2 mg/kg EV

Risultato: 32/35 adeguatamente sedati

Ketamine as Rescue Treatment for Difficult-to-Sedate Severe Acute Behavioral Disturbance in the Emergency Department

Geoffrey Kennedy Isbister, MD, FACEM*; Leonie A. Calver, PhD; Michael A. Downes, MBBS, FACEM; Colin B. Page, MBBS

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Annals of Emergency Medicine 581

Setting: Pronto Soccorso

Popolazione: pazienti con agitazione severa non responsiva alla prima linea di terapia (droperidolo+mdz) (n=49)

Intervento: Ketamina 4-6 mg/kg IM

Risultato: 39/49 adeguatamente sedati dopo somministrazione di ketamina

CLINICAL RESEARCH

A prospective study of ketamine versus haloperidol for severe prehospital agitation

Jon B. Cole^{a,b}, Johanna C. Moore^b, Paul C. Nystrom^b, Benjamin S. Orozco^{a,b}, Samuel J. Stellpflug^c, Rebecca L. Kornas^b, Brandon J. Fryza^b, Lila W. Steinberg^b, Alex O'Brien-Lambert^b, Peter Bache-Wiig^b, Kristin M. Engebretsen^c and Jeffrey D. Ho^b

^aMinnesota Poison Control System, Minneapolis, MN, USA; ^bDepartment of Emergency Medicine, Hennepin County Medical Center, Minneapolis, MN, USA; ^cDepartment of Emergency Medicine, Regions Hospital, St. Paul, MN, USA

Setting: Preospedaliero

Popolazione: pazienti con agitazione psicomotoria (n=146)

Intervento: Ketamina 5 mg/kg IM vs Haloperidolo 10 mg IM

Risultato: Sedazione adeguata: 95% vs 65%

T medio insorgenza sedazione: 5' vs 17'



Tweet



forest fr1ends
@forest_fr1ends



i got enough ketamine to floor a horse mate, how much you want?



Reply to forest fr1ends



Home



Notifications



Moments



Messages



Me

I.M.
5 MG/KG

E.V.
2 MG/KG

Effetti collaterali

Table 4. Complications.

	Ketamine	Haloperidol
Hypersalivation ^a	38% (21/56)	0 (0/69)
Emergence Reaction	10% (5/52)	0 (0/69)
Vomiting	9% (5/57)	3% (2/71)
Dystonia	5% (3/56)	3% (2/69)
Laryngospasm	5% (3/55)	0 (0/69)
Akathisia	2% (1/53)	0 (0/69)
Deaths	0	1% (1/82)

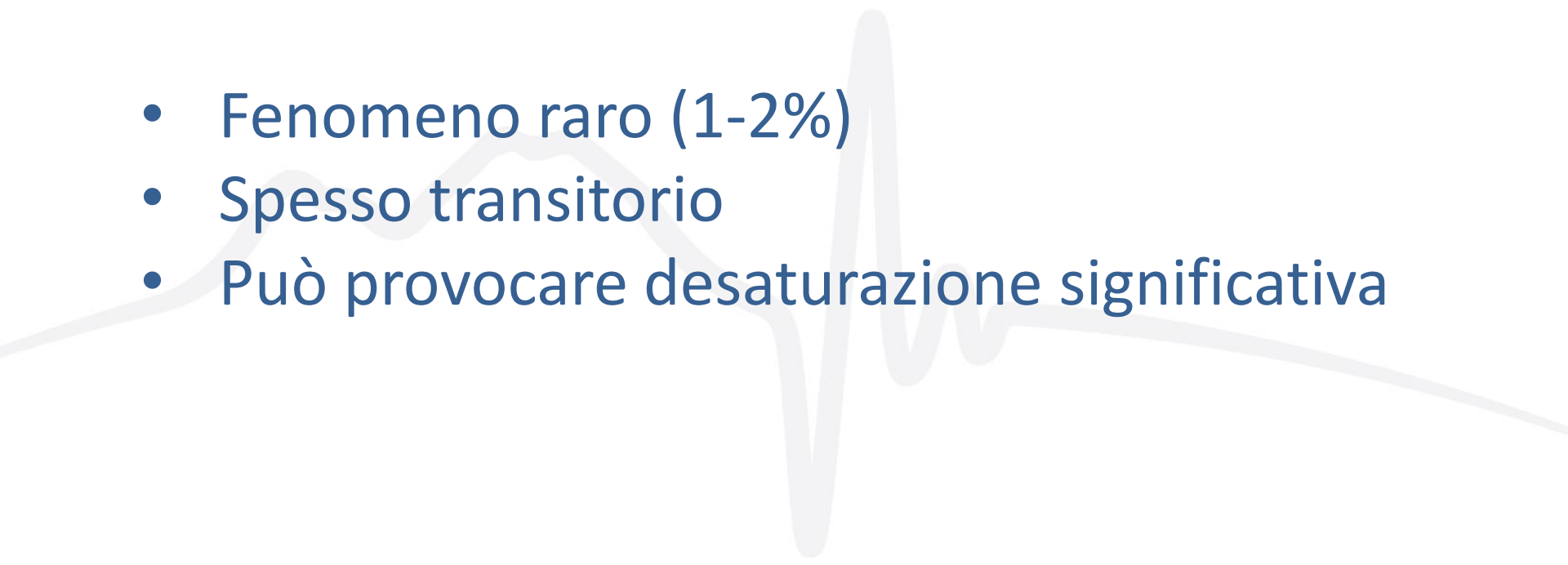
^aTreatments for hypersalivation: suctioning (4), atropine (6), intubation (11).

APNEA

- Associato a somministrazione rapida ev
- Rapida risoluzione spontanea



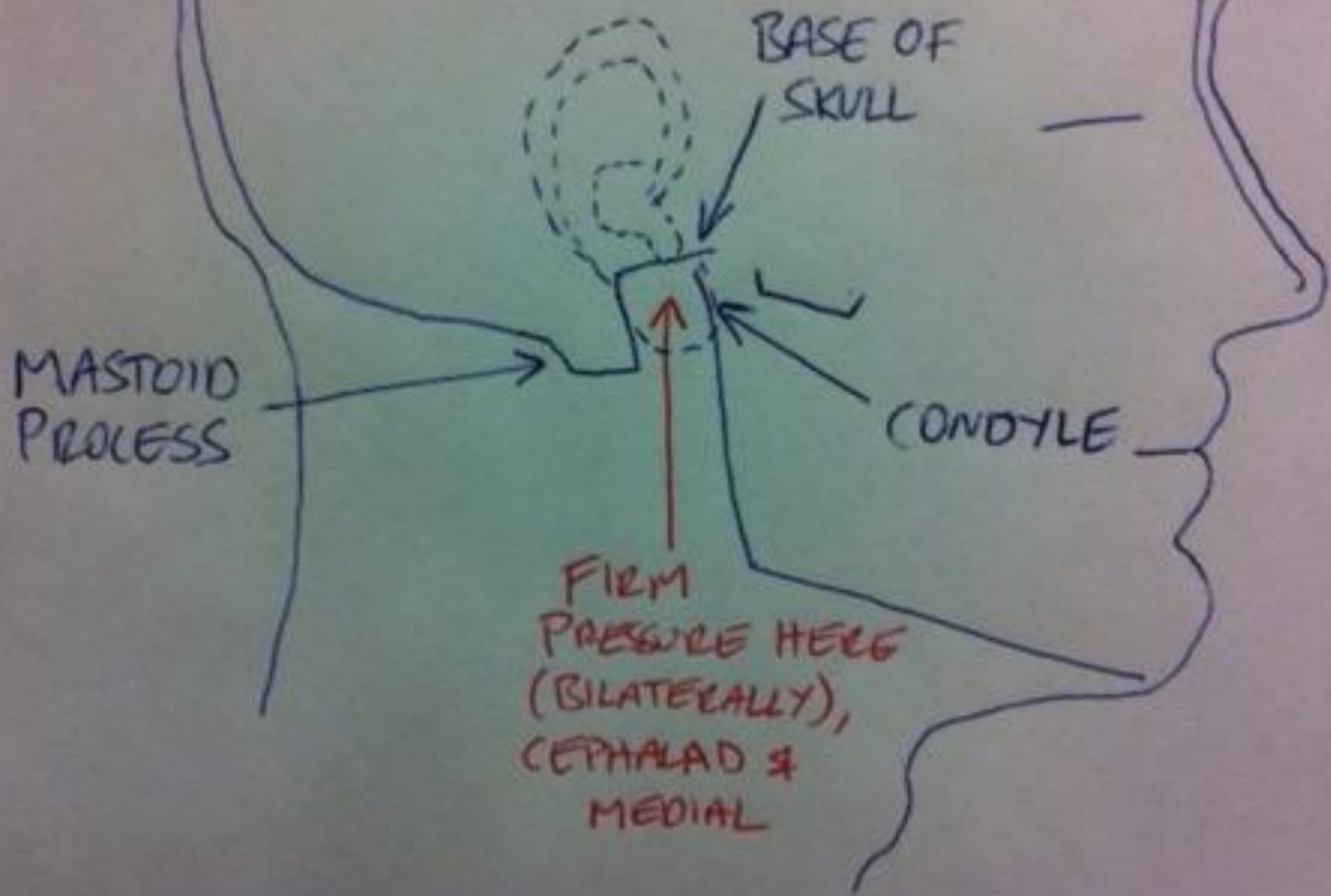
LARINGOSPASMO

- Fenomeno raro (1-2%)
 - Spesso transitorio
 - Può provocare desaturazione significativa
- 

LARINGOSPASMO

1. Ossigeno 100%
2. Manovra di Larson





LARINGOSPASMO

1. Ossigeno 100%
2. Manovra di Larson
3. Ventilazione in AMBU (+peep)
4. Curarizzazione e intubazione (2/11.589)

SALIVAZIONE

- Scarsamente significativa nella sedazione
- Atropina 0,5 mg ev

EMESI

- Tipicamente una volta risvegliatosi

REAZIONE DI EMERGENZA

- Fenomeno allucinatorio spiacevole (bad trip)
- Tipicamente associato a dosi sub-dissociative



REAZIONE DI EMERGENZA

- Ridurre gli stimoli sensoriali (visivi-sonori)
- Midazolam 2 mg ev concomitanti

Ketamine With and Without Midazolam for Emergency Department Sedation in Adults: A Randomized Controlled Trial

Serkan Sener, MD, Cenker Eken, MD, Carl H. Schultz, MD, Mustafa Serinken, MD, Murat Ozsarac, MD

From the Department of Emergency Medicine, Acibadem University School of Medicine, Acibadem Bursa Hospital, Bursa, Turkey (Sener); the Department of Emergency Medicine, Akdeniz University Hospital, Antalya, Turkey (Eken); the Center for Disaster Medical Sciences, Department of Emergency Medicine, UC Irvine School of Medicine, Orange, CA (Schultz); the Department of Emergency Medicine, Pamukkale University Hospital, Denizli, Turkey (Serinken); and the Department of Emergency Medicine, Ege University Hospital, Izmir, Turkey (Ozsarac).

TAKE HOME MESSAGE

- Opzione rapida e sicura per sedazione
- Go **BIG!** (5 mg/kg IM)
- Midazolam 2 mg non appena accesso venoso

Ketamine



So good,
the horses want it back