PHARMACIST CORNER

better RX

Ketamine Dosing Protocols

The World Health Organization designated Ketamine as an essential drug for the management of refractory pain. It is associated with the reduction of opioid tolerance and consumption.

Ketamine is a fast-acting dissociative general anesthetic that is finding a niche in palliative care for hard to manage pain and pain crises. It inhibits and interacts with multiple receptors making it an excellent adjunct for neuropathic pain, opioid-resistant pain, bone pain, and hyperalgesia.

	PCA (sc)	"Burst" (sc)	Pre-Procedure (sc)	Oral	Intranasal	Topical
Initial dose	0.1mg/kg/hr	100mg qd	10-25mg	10-25mg TID	10mg alternating nostril every 90 seconds	5-10mg applied to wound or swish and swallow
Titration dose	2mg/hr	200mg	5mg	10-25mg	-	5mg
Max dose	20mg/hr	500mg qd	-	200mg QID	50mg (5 sprays)	-
Duration of therapy	reduce dose 24 hours after crisis resolved	5 days	-	may be continued > 1 year	-	-
Onset	15-30 min	15-30 min	15-30 min	30 min	10 min	10 min
Duration of Action	30 min-2 hr	30 min-2 hr	30 min-2 hr	4-6 hr	30 min-2 hr	30 min-2 hr

Adverse Effects

Dysphoria, blunted affect, nightmares, hallucinations, tachycardia, hypertension, dissociative feeling ("spaced out"), nausea, vomiting, sedation, delirium, delusions, memory impairment, dysuria, abnormal liver function.

Clinical Pearls

1. Most adverse effects can be managed with co-administration of low-dose lorazepam or haloperidol.
2. Reduce opioid dose by 25-50% when starting Ketamine.
3. Should be considered third or fourth line - try after failing other adjunct therapies.
4. "Burst" therapy may last weeks to months after stopping ketamine before another "Burst" is needed.

References

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