NEUROPATHIC PAIN

The following clinical study found that low dose intranasal ketamine was effective in alleviating neuropathic pain -"Effects of low-dose intranasal (S)-ketamine in patients with neuropathic pain" (Eur J Pain. 2010 Apr;14(4):387-94).

BACKGROUND: NMDA receptors are involved in the development and maintenance of neuropathic pain. We evaluated the efficacy and safety of intranasal (S)-ketamine, one of the most potent clinically available NMDA receptor antagonists.

METHODS: Sixteen patients with neuropathic pain of various origins were randomized into two treatment groups: (S)-ketamine 0.2mg/kg (group 1); (S)-ketamine 0.4mg/kg (group 2). Plasma concentrations of (S)-ketamine and (S)-norketamine were measured over 6h by High Performance Liquid Chromatography combined with mass spectrometry. Quantitative sensory testing (QST) was conducted before, during and after treatment. Side effects and amount of pain reduction were recorded.

RESULTS: Intranasal (S)-ketamine administration lead to peak plasma concentrations of 27.7+/-5.9ng/ml at 10+/-6.3min (group 1) and 34.3+/-22.2ng/ml at 13.8+/-4.8min after application (group 2). Maximal plasma concentrations of (S)-norketamine were 18.3+/-14.9ng/ml at 81+/-59min (group 1) and 34.3+/-5.5ng/ml at 75+/-40min (group 2). Pain scores decreased significantly in both groups with minimal pain at 60min after drug administration (70+/-10% and 61+/-13% of initial pain in groups 1 and 2). The time course of pain decrease was significantly correlated with plasma concentrations of (S)-ketamine and (S)-norketamine (partial correlations: (S)-norketamine: -0.90 and -0.86; (S)-ketamine: -0.72 and -0.71 for group 1 and group 2, respectively). Higher dosing elicited significantly more side effects. Intranasal (S)-ketamine had no significant impact on thermal or mechanical detection and pain thresholds in normal or symptomatic skin areas.

CONCLUSIONS: Intranasal administration of low dose (S)-ketamine rapidly induces adequate plasma concentrations of (S)-ketamine and subsequently of its metabolite (S)-norketamine. The time course of analgesia correlated with plasma concentrations. PMID: 19733106

With our state of the art compounding laboratory and pharmaceutical knowledge and experience, we have the ability to compound ketamine into a nasal spray; in a variety of strengths.

An example of how you might prescribe follows:

COMPOUNDED MEDICATION

Ketamine 10mg/ml
Nasal Spray
30ml
Inhale 1 spray in each nostril every 6 hours as needed