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INFORMATION ON TKAL

TOPICAL Ketamine, Amitriptyline and Lidocaine

What is TKAL?

- This is a topical formulation of ketamine, amitriptyline and lidocaine
- It may help to block itching and burning in patients with various scalp dysesthesias
 1. A recent study of 96 patients (68.8% female) with a mean age of 65 years looked at the benefit of a topical compounded product containing 10% ketamine, 5% amitriptyline, and 5% lidocaine compounded in a lipoderm cream
 2. These patients in the study were troubled by itching for an average of 6 years and about one third had failed more than 3 previous treatments. Patients applied TKAL sparingly to areas that were the most severe, limiting to less than 30% of total body surface area up to 3 times daily.
 3. 63% of patients attributed relief directly to the use of TKAL. 58% had relief to a great extent and 14 35% to a moderate extent, experiencing itch relief within 4.18 ± 3.39 minutes on average.

How is TKAL prescribed?

- It is prescribed sparingly up to three times per day
- Generally we start once daily for 5 days and then twice daily for five days and then up to three times daily afterwards.

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Who should not use TKAL?

- Women should not use if pregnant or breast feeding.
- Do not use if allergic to any of the components of TKAL – ketamine, lidocaine or amitriptyline.
- Anyone who is taking an MAO inhibitor drug (phenelzine) should not use TKAL
- Anyone who had allergy to TCA drug in the past – nortriptyline, desipramine or imipramine
- Anyone who has acute congestive heart failure
- Anyone who recently had a heart attack
- Anyone who is planning surgery soon

What side effects are possible with TKAL?

- Side effects included
 - a) burning in 7 % of patients
 - b) redness in 6 %,
 - c) itching in 4 %.
 - d) 1-2 % of patients had dizziness,
 - e) 1-2 % numbness and a feeling of a raw scalp.

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The following are side effects with oral amitriptyline that are not typically seen with TKAL. Nevertheless, patients should be aware and monitor for them:

- Weight gain
- Dry mouth
- Change in appetite (either more or less)
- Drowsiness
- Muscle stiffness
- Nausea
- Constipation
- Nervousness
- Dizziness or Blurred vision
- Increased eye pressures
- Urinary retention
- Insomnia
- Sexual dysfunction
- Rare side effects of ORAL Amitriptyline include
 - Tinnitus (ringing in the ears)
 - Low blood pressure
 - Mania/psychosis
 - Heart rhythm problems
 - Lip and mouth ulcers
 - Depression
 - Liver toxicity

What side effects should prompt me to STOP TKAL and get medical advice?

- TKAL tends to be very well tolerated.
- Like any medication, stop if you feel unwell.
 - Develop seizures
 - Can't go to the washroom (can't urinate)
 - Your vision changes
 - symptoms of a severe allergic reaction (e.g., swelling of face and tongue, difficulty breathing, hives)
 - you feel agitated
 - you feel suicidal
 - your heart rhythm seems abnormal

Reference

- Topical ketamine-amitriptyline-lidocaine for chronic pruritus: A retrospective study assessing efficacy and tolerability. *Journal American Academy Dermatology*. April 2017. Volume 76, Issue 4, Pages 760–761