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# Treating Chronic Post Herpetic Neuralgia Using Topical Superconcentrated Capsaicin

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# Treating Chronic Post Herpetic Neuralgia Using Topical Superconcentrated Capsaicin



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## BACKGROUND

**Post Herpetic Neuralgia (PHN)** is a painful condition that occurs after reactivation of the dormant Herpes Zoster Virus.

**Typically** PHN presents with a unilateral rash affecting a single dermatome which is accompanied by burning, irritation, and hypersensitivity for >3 months.

**Current** treatment includes anticonvulsants, tricyclic antidepressants, narcotic/non-narcotic painkillers, and topical lidocaine.

**We** propose the utilization of a superconcentrated transdermal patch of capsaicin called Qutenza 8%, which is 300 times more potent than current OTC capsaicin.

**The** treatment protocol using Qutenza to treat refractory PHN proposes a novel approach to the treatment of this condition.

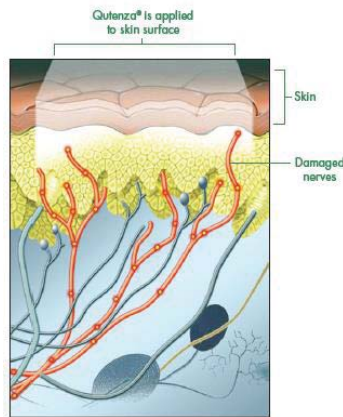


**Pic. 1**  
Patient with current Herpes Zoster Infection

**Capsaicin** is commonly known as the active chemical in peppers which is responsible for their spiciness and the pain and irritation associated with ingesting them.

**The** mechanism of action of capsaicin is believed to be release of neurotransmitters upon binding to capsaicin nociceptors, mainly TRPV1.

**At** large doses, capsaicin causes depletion of neurotransmitters and can ultimately lead to nerve fiber denervation



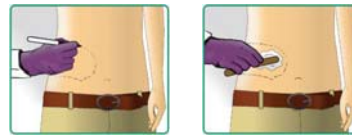
**Figure 1.** Effects of Qutenza Patch

**Once** the neuron is damaged or depleted of neurotransmitters, pain perception is notably diminished for a period of time thereby effectively providing relief.

## METHODS

**Twenty** patients suffering from severe chronic pain from PHN were identified and recruited for the trial.

**Our** protocol included applying Eutectic Mixture of Local Anesthetic (EMLA) to the affected dermatome for 1 hour prior to Qutenza application to prevent capsaicin-associated pain and irritation.



**Figure 2.** Outline affected area    **Figure 3.** Application of EMLA

**Following** EMLA administration, the Qutenza patch was applied over the affected dermatome.



**Pic. 2**  
Patch applied

**Qutenza** was applied until the pain became unbearable. Vital signs + pain score were reassessed every 15 minutes while the patch was on.

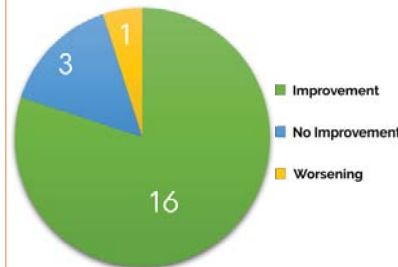
**At** the conclusion of cases, the patch was removed and a cleansing gel was applied to decrease irritation and pain.

## RESULTS

**Patients** were followed up at 2 week and 1 month intervals.

- **16/20** patients reported relief
- **3** patients reported no relief
- **1** patient reported worsening pain

**Chart 1.** Changes in Pain Following Qutenza Therapy



**The** sixteen responders collectively reported a **53.2% decrease** in frequency and severity of pain, assessed using qualitative scales.



**Figure 4.** Qualitative pain scale

**Patients** reported an average relief time of **4.2 months** with Qutenza therapy, with full pain sensation returning within 6 months following treatment. Patients are eligible for repeat treatment every 3 months.

## DISCUSSION

**The** Qutenza treatment showed an average of a 53.2% reduction in pain, as was expected with this treatment.

**Given** that treatment can be given every 3 months while patients report a relapse in pain within 6 months on average, theoretically Qutenza application could be an effective lifelong treatment, or until pain subsides on its own.

**These** results show that the proposed treatment protocol for Qutenza is effective using our initial snapshot of twenty patients. Continued patient recruitment and follow-up is planned to collect more data.

## CONCLUSIONS

**We** believe that our treatment algorithm is an effective method for controlling the pain associated with PHN, and the relief associated with the treatment outweighs the pain associated with undergoing the procedure.

**However,** more data is needed to provide statistically significant data and we will continue to gather subjects and analyze results to determine the true effectiveness of this therapy.

