



High-dose 8% Capsaicin Patch in Treatment of Chronic Neuropathic Back Pain in a Pregnant Woman

Seung Mi Oh, MD¹, Ludovica Stilli², Kateryna Slinchenkova², Karina Gritsenko, MD^{1,3}, Jacob Hascalovici MD, PhD^{1,3}, and Naum Shaparin, MD, MBA^{1,3}

¹Montefiore Medical Center, Department of Anesthesiology, Bronx, NY; ²Cornell University, Ithaca, NY; ³Montefiore/Albert Einstein College of Medicine, Bronx, NY

Montefiore



Background

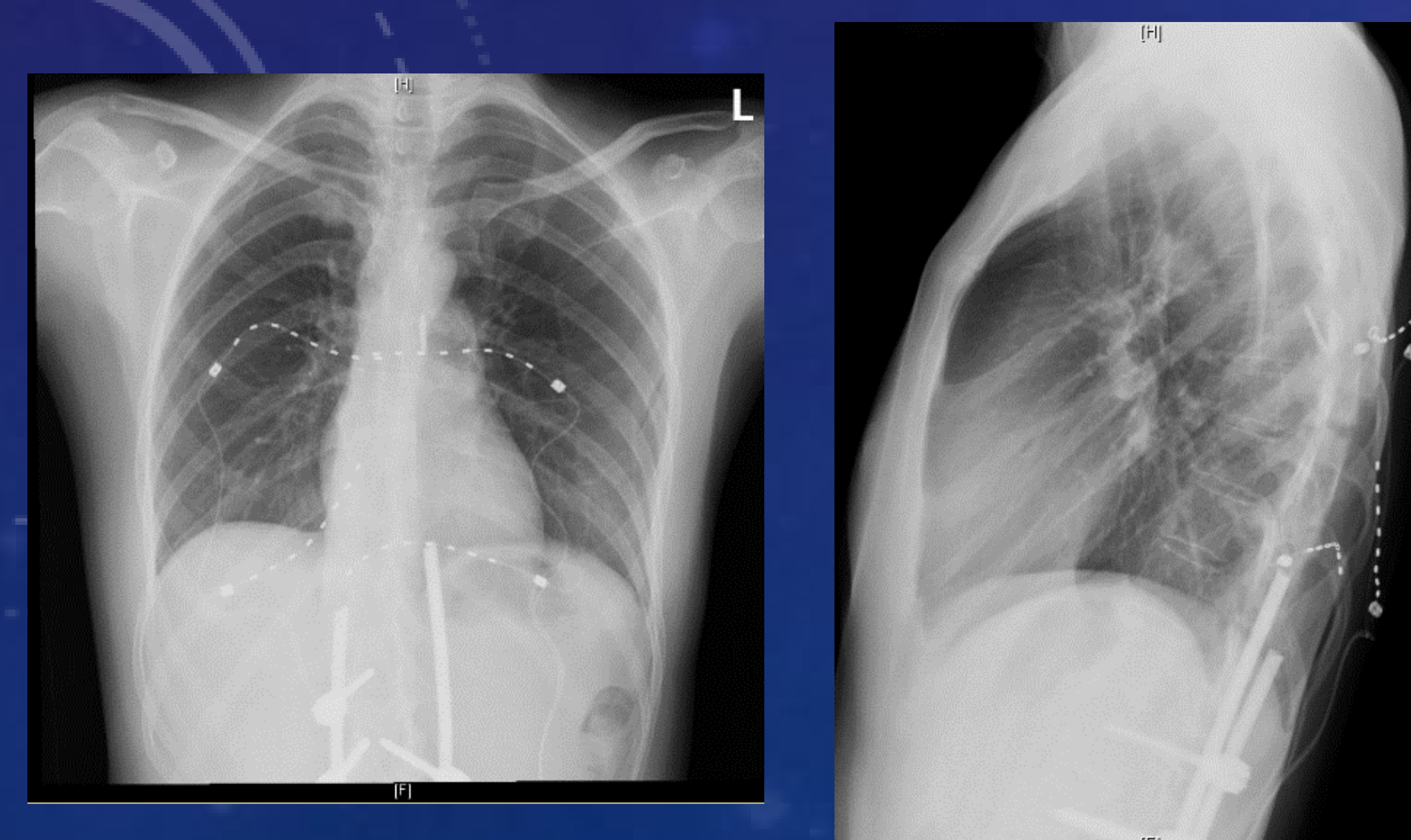
- Pain management of chronic pain patient during pregnancy can present with perinatal challenges as progression of pain is juxtaposed with limited analgesic options.
- Pre-existing neuropathy may deteriorate during pregnancy¹ and pharmacologic agents are limited by efficacy and reproductive safety profiles.
- An estimated 7% of pregnant women use opioids to relieve pain, however chronic opioid use in pregnancy has been linked to neonatal abstinence syndrome².
- Acetaminophen and 8% capsaicin patches are category B medications³ for pregnancy as there are animal studies showing no harm to the fetus

Patient Presentation

- A 34-year-old female with a history of chronic migraine, childhood scoliosis s/p T5-L3 posterior spinal fusion, complicated by post-laminectomy syndrome, presented to our pain center in 2014 with myofascial and neuropathic back pain. Repeat spinal imaging did not explain her back pain symptoms.

In years 2014-2017, Patient had tried the following therapies with intermittent and >50% but incomplete relief

- Paraspinal trigger point injections
- TENs
- Caudal epidural steroid injections
- Medial branch blocks and ablation
- Peripheral field stimulator



Treatment

- Despite no evidence of hardware failure, patient underwent elective partial Harrington rod removal in 2019 after exhausting all reasonable medications and interventional therapies.

- The patient was introduced to 8% capsaicin patch in 2021 when she returned with thoracic back pain that was neuropathic in nature. At the time she was on a regimen of gabapentin, tizanidine, methocarbamol and oxycodone/acetaminophen.

- Patient underwent capsaicin patch application in 2022 without adverse effects. Patient endorsed significant relief after treatment and continued with repeat application. In June 2023, patient informed our practice she was 14 weeks pregnant.

- After consulting with patient's OB/GYN and weighing the risks and benefits, patient chose to continue planned treatment with the patch.

Discussion

- Patient had preterm delivery at 30 week's gestation and returned to pain clinic 8 weeks post-partum for repeat Qutenza application. Her pain was controlled on acetaminophen and patient was breastfeeding.

- We report the case of a complicated neuropathic failed back syndrome pain in a patient of reproductive age with significant pain relief from high-concentration capsaicin patch which continued throughout the peripartum period.

- High dose 8% capsaicin patch is generally considered a safe procedure with no known adverse effect in peri- and postnatal development period in animal studies. Multiple studies have shown topical capsaicin to improve pain while minimally entering the bloodstream

- High dose capsaicin patches may be a good alternative solution in pregnant patients with chronic neuropathic back pain

References

1. Rosier C, Camdessanché JP. Neuropathy and pregnancy: An overview. Rev Neurol (Paris). Mar 2021;177(3):220-224. doi:10.1016/j.neurol.2020.04.024
2. Ray-Griffith SL, Wendel MP, Stowe ZN, Magann EF. Chronic pain during pregnancy: a review of the literature. Int J Womens Health. 2018;10:153-164. doi:10.2147/ijwh.S151845
3. FDA Pregnancy Categories. 2008