

# Paxlovid For Refractory Neuropathic Pain- possible role of anti-virals in neuropathic pain

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## Background and Aims

Refractory neuropathic pain, especially, chronic post-surgical pain (CPSP)(1) is a difficult entity to treat and is especially common after certain types of surgery.(2) In 2014, the world's first, multidisciplinary Transitional Pain Service (TPS) at the Toronto General Hospital (TGH) was developed.(3) We present an interesting case of post-surgical neuropathic pain that almost completely resolved with the use of Paxlovid that was refractory to treatment since the past 7 years. We present an interesting case of post-surgical neuropathic pain that almost completely resolved with the use of Paxlovid that was refractory to treatment since the past 8 years. It may be worthwhile considering Paxlovid for refractory neuropathic and CPSP.

## Methods

A 67 (now 74) year-old female was referred initially to the TPS at our hospital to manage post-surgical incision pain from breast surgery for left-sided pT1c N1a, grade 2, invasive ductal carcinoma, ER/PR positive, HER-2 negative, status post breast conserving surgery performed in February 2016. A few months after her breast surgery, she was diagnosed with two synchronous primary tumors from her right upper lobe and right lower lobe of the lung. She underwent surgical wedge resection and the biopsies were reported to be: T1b N0 adenocarcinoma in the right upper lobe, and a T1a N0 adenocarcinoma in right lower lobe. She was on treatment initially on gabapentin, that provided her with marginal relief. Her primary issue was incisional pain after the breast surgery and she also preferred to take minimal medication as she believed in non-pharmacological approaches for pain control. Over the years, her incisional pain increased in intensity without relief from conventional therapy.

## Results

She was willing to try other medication, and after a short course of opioids, decided against their use due to side effects and sub-optimal pain control. For the past 5 years, she was on gabapentin 100 mg twice day. She was tried on anti-neuropathic topical agents, and a combination of other anti-neuropathic agents but could not tolerate them. A few months ago, she contracted COVID infection, and was placed on Paxlovid to treat it. After the first dose, she slept for 8 hours that night, and when she woke up, she noticed a significant improvement in her neuropathic pain. By end of the 5-day course, she had minimal pain that she was suffering from all these years. She also noticed a significant improvement in her sleep and did not need the Zopiclone every night. NRS pain score reduced to 1-2/10, from 6-8/10.

## Conclusions

Paxlovid may be an alternative to be considered for refractory neuropathic pain. Anti-retroviral therapy (such as in treating HIV) has been known to causative in sensory neuropathy(4), and the role of oral acyclovir is not thought to be as robust in preventing post-herpetic neuralgia, as per a Cochrane review.(5) One study concluded that anti-viral therapy was less effective than analgesics in controlling post-herpetic neuralgia(6). While the mechanism of Paxlovid reducing the neuropathic pain in our patient is unknown and further studies are needed, it may be worthwhile to consider Paxlovid for refractory neuropathic pain, especially post-surgical pain, to reduce the intensity of pain.

## References

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