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## CLINICAL VIGNETTE

# Herpes Zoster Pseudohernia

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### Case Report

A 78-year-old female presents to her primary care physician with left sided abdominal swelling of six weeks duration. Chronic medical problems include: prediabetes, rheumatoid arthritis, hypothyroidism, OSA on CPAP, Fibromyalgia, hyperlipidemia and hypertension. She was initially hospitalized with Herpes Zoster infection two months ago and noted the abdominal swelling increasing as the zoster rash on the left side of abdomen had improved. She denies fevers, nausea, changes in bowel habits and reported no changes to urination or appetite. Swelling of the abdomen had not improved with use of diuretic or NSAID. She had completed a course of valacyclovir for shingles and no longer had a herpetic rash or post herpetic pain in the left side of her abdomen where the rash had initially been located. Her medications included rosuvastatin, metformin, levothyroxine, losartan and infliximab.

On exam, patient was in no acute distress. Blood pressure was 164/82, heart rate of 66, afebrile with normal respirations and oxygenation. Left side of the abdominal was visibly larger than right, nontender to palpation without fluid wave. Left sided abdominal bulge was not reducible. No rashes or skin changes were present. Labs were pertinent for normal hepatic panel and electrolytes. CT scan of abdomen was normal, showing only cholelithiasis with normal abdominal/pelvic lymph nodes and no abdominal wall abnormalities or fluid.

Left sided abdominal bulge did not respond to treatment with gabapentin, diuretic, NSAID, heat, or ice, but improved gradually over time and had completely spontaneously resolved in four months.

### Discussion

Herpes zoster, caused by reactivation of latent Varicella-zoster from the dorsal root ganglia, is a distinct clinical syndrome that can affect 10-20% of the general population.<sup>1</sup> Although most neurological complications of Zoster are sensory, infrequently motor complications can occur in the segments corresponding to the involved sensory dermatomes.<sup>1</sup> When motor involvement is localized in the abdominal wall, a pseudohernia may be the clinical presentation.

A literature review done by Tirelli et al of the publications found 36 individual cases of post herpetic pseudohernia. The mean age was 67.5 years and the ratio of men to women 4:1.<sup>2</sup> This literature review found the right and left side to be approxi-

mately equally affected. The most affected associated dermatome was T11. The time period from rash to onset of abdominal muscle weakness was 3.5 weeks. Complete recovery with conservative measures occurred in 79.3% of the patients who were followed-up for recovery, with a mean time for recovery of 4.9 months.<sup>2</sup>

Nerve conduction tests can be used for diagnosis and detection of abdominal wall muscle paralysis. These electrodiagnostic studies confirmed the diagnosis in 95% of the tested patients per Tirelli et al.<sup>2</sup> CT can be useful in excluding wall hernia defects and occasionally these studies can confirm the diagnosis by revealing thinning of the abdominal wall muscle.<sup>3</sup> MRI with Gad can help delineate the extent of the inflammation and demonstrate increased T2/STIR signal intensity in the abdominal wall muscles, suggesting acute denervation.<sup>4</sup>

### Conclusion

Post-herpetic pseudohernia should be suspected when a patient develops signs and symptoms of motor dysfunction that coincide with or follow herpes zoster eruption. This poorly known condition may raise suspicion for true abdominal wall hernia or other concerning etiologies, resulting in extensive work-up and imaging. However, it is a relatively benign condition, which resolves spontaneously in less than six months in most cases.



Figure 1.

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