

Abstract

- Abdominal distention is a nonspecific presentation with a variety of etiologies
- Uncommon cause of asymmetric abdominal distention is abdominal paresis due to herpes zoster virus (HZV) infection or shingles
 - Abdominal paresis, pseudo hernia, and abdominal monoplegia due to HZV are all names given to the same condition – weakness of abdominal wall muscles due to reactivation of HZV
 - Commonly mistaken for other processes such as abdominal hernias, tumors, rectus diastasis, etc.
- This case report highlights an instance of late-onset abdominal paresis one year after the onset of shingles rash. This condition has a benign prognosis, and it is imperative physicians are aware of it as the population in the United States continues to age and the prevalence of HZV infection and its multiple associated complications potentially increases

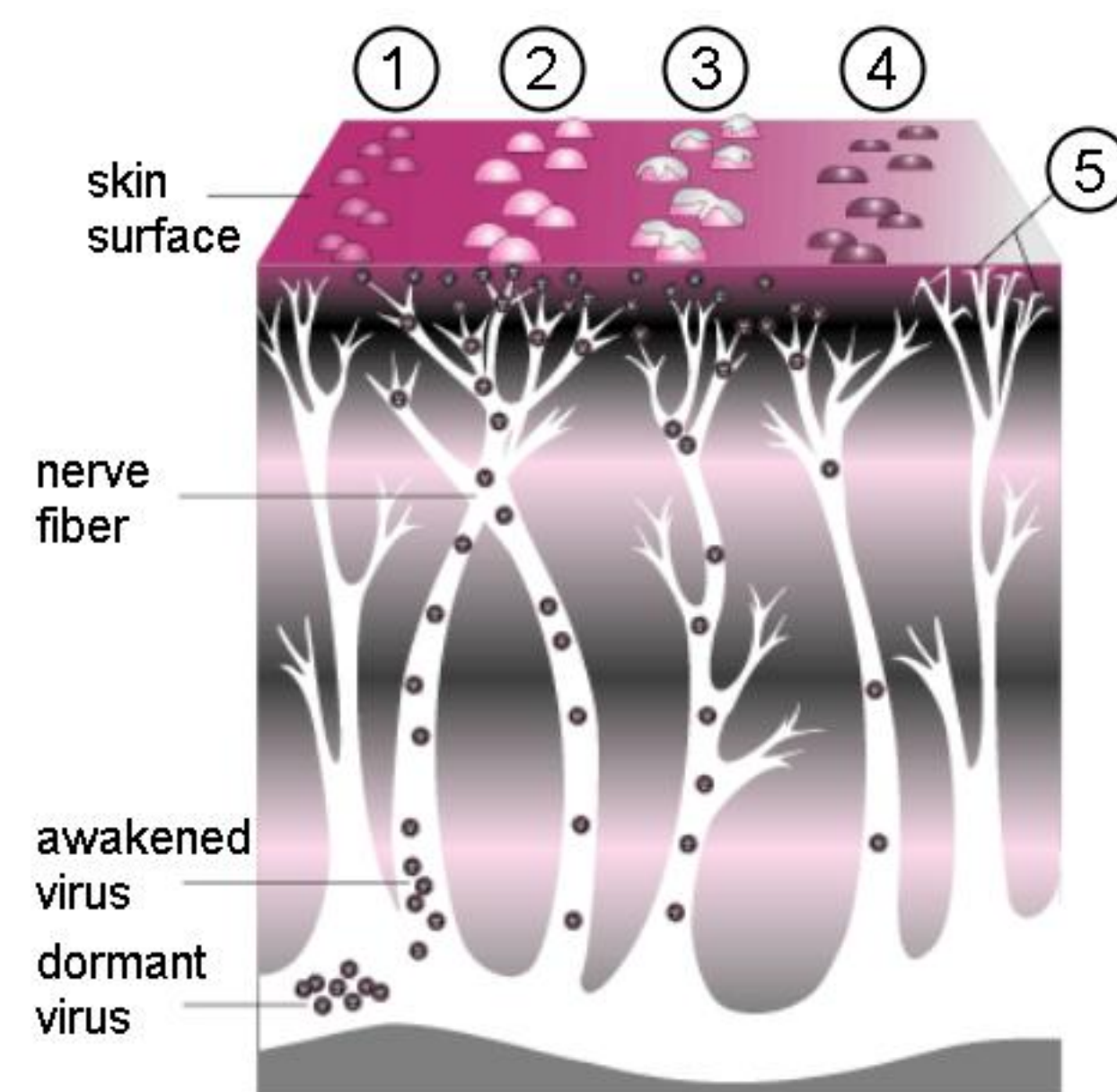


Figure 1. Shingles Diagram. Available under Public Domain. https://www.physio-pedia.com/File:Shingles_diagram.png

Case Information

- 77-year-old male, PMH of hiatal hernia, diverticulosis, cancer of the left kidney, and IBS presented with painful vesicular rash along left trunk and side
- Diagnosed with shingles and treated accordingly
- After rash resolved, patient was left with postherpetic neuralgia for which he received an intercostal nerve block
- Several months after onset of shingles, noticed asymmetric abdominal distention on his left side that was worse when laying down and better when standing. His PCP thought he had a hernia and referred him to general surgeon who diagnosed him with rectus diastasis
- At our office had continued, unilateral abdominal distension
 - Abdominal bulge was not reducible, no associated pain or discomfort
 - Only medication at the time was Lyrica for pain management
- Diagnosis of abdominal monoplegia due to HZV was made and his prior diagnosis of rectus diastasis discarded
 - Asymmetric abdominal bulge as opposed to midline, history of HZV infection
 - At this time, still has not resolved about 16 months after the onset of his rash



Figure 4. Patient on standing.



Figure 5. Patient laying down demonstrating left-sided asymmetry.

Discussion (cont.) & Conclusion

- Several case reports recount original misdiagnoses of abdominal distention due to HZV
 - Examples include intestinal pseudo-obstruction,⁹ intraabdominal tumor,³ abdominal wall hernia⁸
- Consider abdominal paresis due to HZV in individuals presenting with asymmetric abdominal bulging and corresponding history of recent shingles infection to avoid unnecessary and costly workups
- In summary, we presented a rare case of segmental zoster abdominal paresis, which resembled rectus diastasis and appeared almost one year after the onset of the shingles rash. This condition typically has a favorable prognosis and limited need for treatment
- With increasing incidence of HZV infection, understanding abdominal pseudo hernia as a potential complication may limit costly and time-consuming workups, unnecessary imaging, and multiple specialist referrals
- Reassurance regarding the benign nature of this complication is all that is required.



Figure 7. Shingles Rash. Available under CCA-Share Alike 3.0. <https://en.wikipedia.org/wiki/File:ShinglesDay5.JPG>

Introduction

- Differential diagnosis of abdominal distention includes small bowel obstruction, ascites, gynecologic malignancies with omental carcinomatosis, physiological distention as part of irritable bowel syndrome, ventral hernias, or rectus diastasis
- Rare cause: abdominal paresis
 - Localized, often unilateral, partial paralysis of abdominal wall muscles
 - Causes bulging appearance that resembles a hernia
 - HZV or shingles is leading culprit of abdominal wall monoplegia¹⁻⁹
 - Common in the elderly and immunocompromised.
- Many cases eventually resolve without complication
 - Some left with problems such as postherpetic neuralgia, peripheral neuropathy, and motor weakness
- Of potential complications, pseudo hernia and abdominal monoplegia is one of the rarest, occurring in about 0.7% of cases⁸



Figure 2. Rectus diastasis. Available under CC 1.0. https://commons.wikimedia.org/wiki/File:Diastasis_recti_old_man.jpg

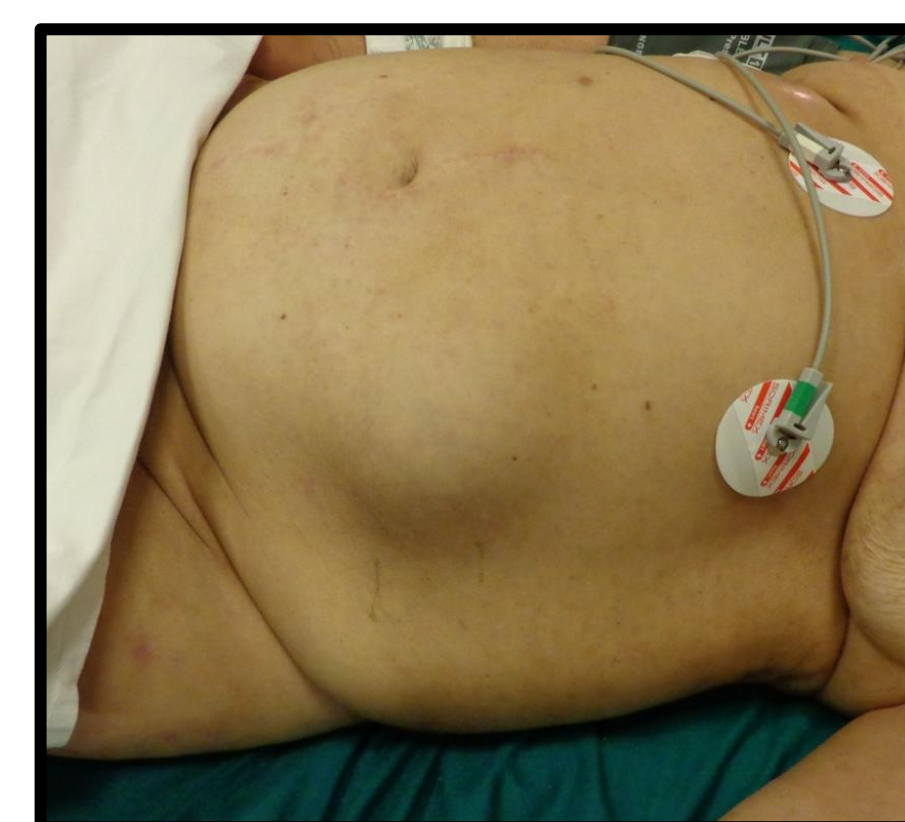


Figure 3. Spigelian hernia. Available under CCA-Share Alike 3.0. https://commons.wikimedia.org/wiki/File:Hernia_spighehi_01.JPG

Discussion

- HSV commonly reactivates and travels down a dorsal root ganglion along a dermatomal distribution over the trunk
- Skin of the trunk and abdomen is innervated by the anterior cutaneous branches of the intercostal nerves
 - Parietal perineum, internal and external oblique muscles, rectus abdominus muscle and internal abdominus muscle are innervated by the lower intercostal nerves¹¹
 - Lower intercostal nerves originate from anterior rami from T7-T11-> travel along their analogous intercostal spaces into the abdominal wall -> end in anterior cutaneous branches of the intercostal nerves¹¹
 - HZV therefore has potential to travel along this pathway causing shingles on the trunk and abdominal paresis
- Average onset of motor paresis after cutaneous symptoms of HZV was 27.6 days and the average time to resolution of the abdominal pseudo hernia was 4.3 months⁶
 - Another review showed average onset after eruption of the shingles rash was 14 days²
- This case report highlights an instance far outside of the ordinary - approximately one year after the onset of the patient's rash

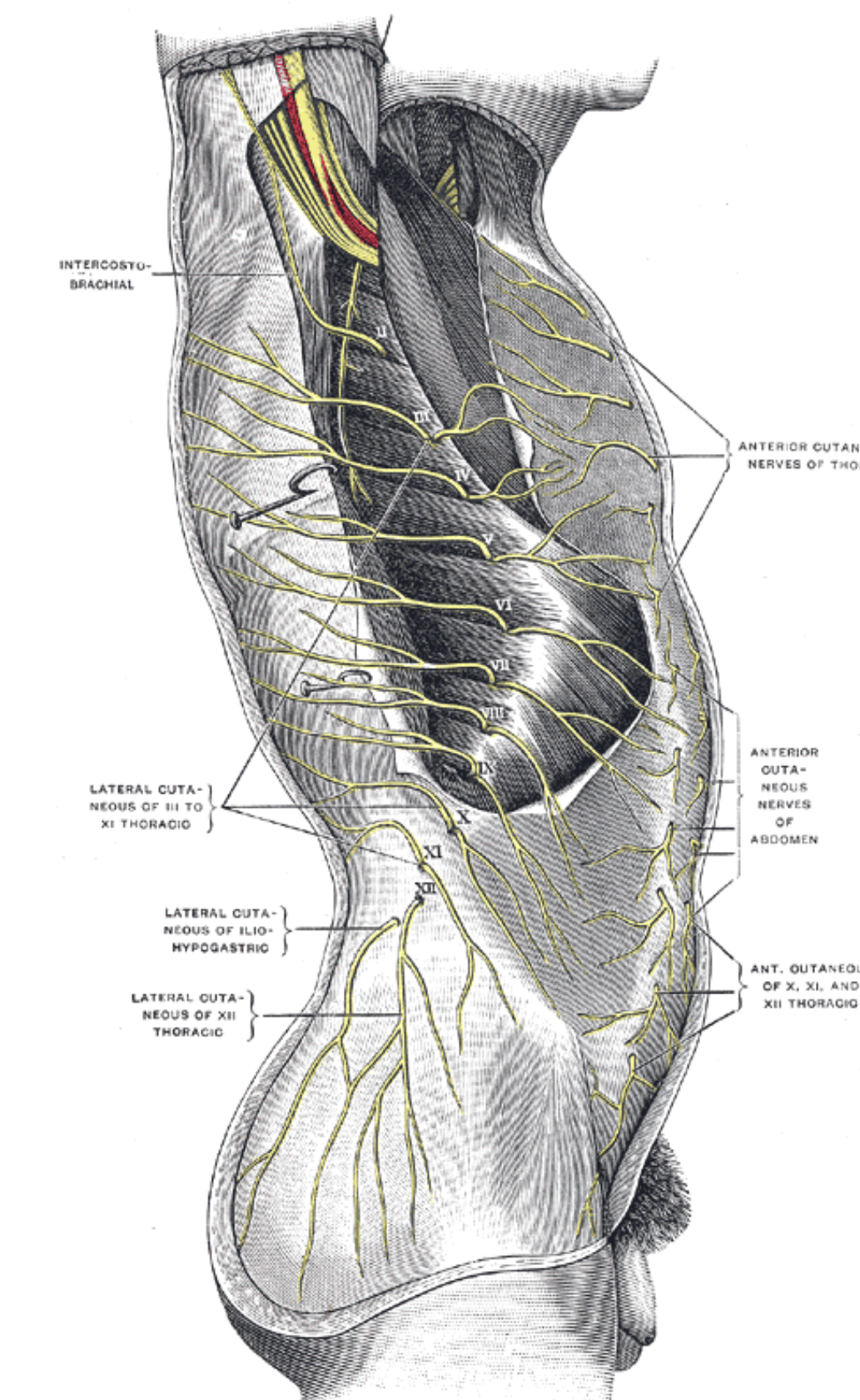


Figure 6. Cutaneous distribution of thoracic nerves. Available under Public Domain. Henry Gray (1918) *Anatomy of the Human Body*. <https://commons.wikimedia.org/wiki/File:Gray820.png>

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