



International Journal of Case Reports (ISSN:2572-8776)



Pseudo-Ortner Syndrome

Nikhil Bhatia, MD¹, Asha Ramsakal, DO, MBS, FACP², Bjorn Holmstrom, MD, FACP, FHM³

¹University of South Florida Morsani College of Medicine

²Assoc Prof of Medicine, University of South Florida Morsani College of Medicine; Chair, Dept of Internal Medicine, Moffitt Cancer Center, Tampa, FL

³Assistant Prof of Med, University of South Florida Morsani College of Medicine; Assistant Member, Dept of Internal Medicine; Moffitt Cancer Center, Tampa, FL

ABSTRACT

Ortner syndrome is vocal cord paralysis secondary to left recurrent laryngeal nerve palsy from atrial dilation. We present the case of a 28 year old woman with metastatic appendicular cancer to the peritoneum and pleura who experienced chest pain, progressive dyspnea and change in vocal quality secondary to esophageal impingement on the recurrent laryngeal nerve. This novel case of “Pseudo-Ortner Syndrome” further demonstrates the susceptibility of the laryngeal nerve to palsy secondary to mechanical impingement stemming from an unlikely distal non cardiac source.

Keywords: Pseudo-Ortner Syndrome, case report

*Correspondence to Author:

Bjorn Holmstrom, MD, FACP, FHM
Assistant Prof of Med, University of South Florida Morsani College of Medicine; Assistant Member, Dept of Internal Medicine; Moffitt Cancer Center, Tampa, FL

How to cite this article:

Nikhil Bhatia, Asha Ramsakal, Bjorn Holmstrom. Pseudo-Ortner Syndrome. International Journal of Case Reports, 2019 4:65

 eSciPub
eSciPub LLC, Houston, TX USA.
Website: <http://escipub.com/>

Case Presentation:

A 28 year old woman with a history of metastatic adenocarcinoma and peritoneal carcinomatosis with partial bowel obstruction presented with 6 days of progressive nausea and vomiting. The patient also reported chest pain that was associated with retching and mild shortness of breath. She experienced change in vocal quality over the past few months noting that her voice was softer but higher pitched.

Exam revealed BP 108/78, heart rate 140, respiratory rate 18, afebrile, and 98% oxygen saturation. Her heart was tachycardic without murmurs, clear lungs bilaterally, abdomen was mildly distended, tympanic with diffuse tenderness and hypoactive bowel sounds. Imaging was significant for extensive peritoneal and omental carcinomatosis without high grade obstruction and showed a normal caliber esophagus. The patient was treated supportively with antiemetics, IV fluids and soft diet.

On hospital day 2 the patient experienced worsening chest pain that was an aching pressure with progressive dyspnea that was prominent with conversation and her speech was hoarse and hypophonic. Of note, she reported similar episodes prior to admission. Oxygen saturation remained within normal limits and exam was unchanged.

An EKG showed T wave inversions (not present on EKGs prior to this admission). A 2D echo revealed EF of 50%, normal RV and small LA from possible impingement due to an extra-cardiac mass. Repeat CT revealed a dilated esophagus that was impinging on the left atrium.

The patient underwent gastrointestinal decompression with NG tube for small bowel ileus with resolution of esophageal distension. The patient's chest pain resolved immediately and the hoarseness and dyspnea resolved over the next 3 days.

Discussion:

In a review of over 500 patients with recurrent laryngeal nerve paralysis, Yamada et al. found 3% of cases were caused by neoplasms, 30%

by surgical intervention, 16% were idiopathic and 11% traumatic. Underlying cardiac disease is a small fraction of potential causes (4). We were able to only find 3 published case reports in which esophageal dilation led to vocal cord paralysis from recurrent laryngeal nerve palsy. One case was due to iatrogenic dilatation of an esophageal stricture (7). The second and third case were due to dilation of the cervical esophagus secondary to achalasia (6) and stricture (9). To our knowledge this is the first reported case related to peritoneal carcinomatosis- induced ileus with subsequent esophageal dilation and left atrial impingement on the recurrent laryngeal nerve.

It was originally theorized by Ortner that an enlarged left atrium would compress the left recurrent laryngeal nerve against the aorta causing injury to the nerve. In our case, the injury to the recurrent laryngeal nerves most likely occurred in the tracheoesophageal groove. Our patient's symptoms of dyspnea and hoarseness recovered in less than a week after gastrointestinal decompression. This is very similar to the previously mentioned achalasia and esophageal strictures cases of bilateral recurrent laryngeal nerve palsy secondary to esophageal distension. In both cases the vocal cords recovered due to quick intervention and decompression.

Conclusion:

Our patient presented with dyspnea and dysphonia which are classic symptoms of recurrent laryngeal nerve palsy. Ortner's syndrome is an uncommon cause of recurrent laryngeal nerve palsy and is associated with a dilated left atrium. Esophageal dilation remains an even rarer cause of recurrent laryngeal nerve palsy. This novel reversible case of "Pseudo-Ortner's Syndrome" further demonstrates the susceptibility of the laryngeal nerve to palsy secondary to mechanical impingement by a dilated esophagus; the latter induced from an even more distal source, in our case small bowel obstruction from peritoneal carcinomatosis.

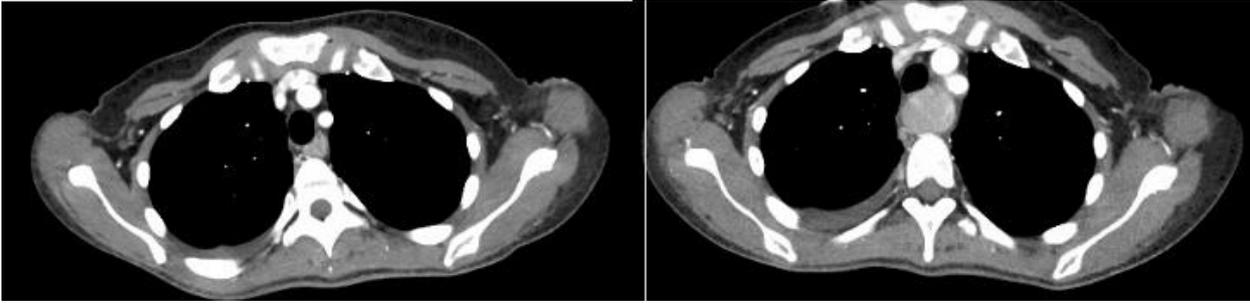


Figure 1 CT imaging of the patient showing dilated esophagus

References

1. Subramaniam, V., Herle, T. V., Mohammed, N., & Thahir, M. (2011). Ortner's syndrome: case series and literature review. *Brazilian journal of otorhinolaryngology*, 77(5), 559-562.
2. Paquette, C. M., Manos, D. C., & Psooy, B. J. (2012). Unilateral vocal cord paralysis: a review of CT findings, mediastinal causes, and the course of the recurrent laryngeal nerves. *Radiographics*, 32(3), 721-740.
3. Glazer, H. S., Aronberg, D. J., Lee, J. K., & Sagel, S. S. (1983). Extralaryngeal causes of vocal cord paralysis: CT evaluation. *American Journal of Roentgenology*, 141(3), 527-531.
4. Bickle, I. C., Kelly, B. E., & Brooker, D. S. (2002). Ortner's syndrome: a radiological diagnosis. *The Ulster medical journal*, 71(1), 55.
5. Yamada, M., Hirano, M., & Ohkubo, H. (1983). Recurrent laryngeal nerve paralysis. A 10-year review of 564 patients. *Auris Nasus Larynx*, 10, S1-S15.
6. Chegar, B. E., & Emko, P. (2004). Bilateral vocal cord paralysis secondary to esophageal compression. *American journal of otolaryngology*, 25(5), 361-363.
7. Wong, E., Quy Phong Do, T., & Stewart, T. E. (2017). Unilateral Vocal Cord Paralysis Following High Oesophageal Stricture Dilatation: Case Report and Review of the Literature. *Journal of Otolaryngology-ENT Research*, 9(3).
8. Mulpuru, S. K., Vasavada, B. C., Pudukollu, G. K., & Patel, A. G. (2008). Cardiovascular syndrome: a systematic review. *Heart, Lung and Circulation*, 17(1), 1-4.
9. Heikkinen, J., Milger, K., Alexandre-Lafont, E., Woitzik, C., Litzlbauer, D., Vogt, J. F., ... & Tiede, H. (2012). Cardiovascular syndrome (Ortner's syndrome) associated with chronic thromboembolic pulmonary hypertension and giant pulmonary artery aneurysm: case report and review of the literature. *Case reports in medicine*, 2012.
10. Wickramasinghe, L. S., Chowdhury, C. R., Pillai, S. S., & Ghosh, S. (1988). Distended oesophagus as a cause of bilateral recurrent laryngeal nerve palsy. *Postgraduate medical journal*, 64(758), 958.

