Symptomatic gallbladder diverticulosis, a rare anomaly

M. Guevara-Kissel, S. Gumbs, MD[1], I.Chime, MD[1], MD[1], M.Paez, MD[1], L.Callahan, MD[1] , J. Fontirroche, BA[3] , F. Gattorno, MD[2]

1.Dept of Surgery, Harlem Hospital/Columbia University, New York, New York
2.Dept of Surgery, Woodhull Hospital/NYCHHC, New York, New York
3.St. George's University School of Medicine

Introduction:

Diverticular disease of the gallbladder is a rare entity that can be congenital or acquired. Its incidence has been reported to be 0.06%, out of which 0.0008% is specifically diagnosed through surgical pathology [1]

Gallbladder diverticulums can present with clinical symptoms that mimic the presentation of other more common causes of biliary disease. Diagnosis represents a true challenge. Ultimately, it is more often diagnosed after surgery during evaluation of the pathology specimen pathology. [1,2]

Case presentation:

We present a case of a 40-year-old female with a history of cholelithiasis who presented with recurrent right upper quadrant abdominal pain, nausea, and vomiting. Imaging and blood work was unremarkable. Patient was advised to present to the clinic for elective cholecystectomy planning to resolve her symptomatic cholelithiasis; she later underwent laparoscopic cholecystectomy. Pathology report described acute on chronic cholecystitis with an outpouching filled with polymorphonuclear leukocytes, including neutrophils, plasma cells, and macrophages and one benign reactive lymph note.
Post operative course was unremarkable and the symptoms resolved.

DISCUSSION

- Rare anatomical anomaly that is usually diagnosed incidentally on post operative pathology.
- This pathology can be classified as true vs pseudo-diverticulum.
- True congenital diverticula have all 3 layers of the gallbladder while pseudo-diverticulum tends to be the results of an underlying pathology or traction.
- Pseudo-diverticulum has been reported as the most common.
- Pathophysiology of the different types can vary from congenital to acquire factors.
- Presence of stones is thought to contribute to chronic inflammation and weakening of the wall of the gallbladder, potentially contributing to the development of outpouching.
- While gallbladder diverticula are generally asymptomatic, a subset of individuals experience clinical symptoms which poses a diagnostic challenge.
- High level of suspicion is necessary. Management involves cholecystectomy.

Radiological imaging:

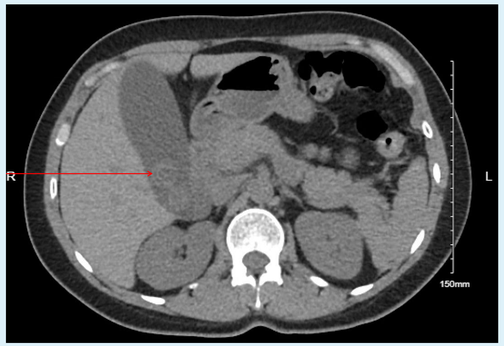


Figure 1. CT abdomen axial view showing a large and distended gallbladder with multiple stones (red arrow).



Figure 2. CT abdomen sagittal view showing a large and distended gallbladder (red arrow).

CONCLUSIONS:

Despite the rare incidence of gallbladder diverticulum, it can present with similar symptoms as the more common gallbladder pathologies representing a diagnostic challenge considering it to be atypical presentation. It also begs the question that it is a diverticulum, it can possibly have the same pathophysiology of colonic diverticulosis leading to inflammation of the diverticulum causing recurrent symptomatic episodes and associated complications related to inflammation.

REFERENCES:

1. Printes, T. R., Rabelo, Í. E., Cauduro, J. F., Lopez, E. C., Dos Santos, C. F., Melo, T. F., Regino, H. G., & Machado, A. A. (2020). Left-sided gallbladder (LSG) associated with true diverticulum, a case report. *AME Case Reports*, *4*, 26–26. https://doi.org/10.21037/acr-20-55
2. Demyati, K., Nayfeh, A., Abu Rass, H., & Awadghanem, A. (2021). Congenital diverticulum of the gallbladder, a rare anomaly: Clinical, radiological, operative, and histopathological features. Palestinian Medical and Pharmaceutical Journal, 7(2).
3. Chen, G., Sha, Y., Guo, N., & He, Y. (2024, June 8). *Gallbladder diverticulum as a rare disease and a therapeutic challenge: A case report*.Cureus.https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11230613/
4. Reddy, R. (2023, April 24). *True diverticulum of the gallbladder in acute calculous cholangitis: A rare presentation*. Karger Publishers. https://karger.com/dmj/article/6/3/216/835743/True-Diverticulum-of-the-Gallbladder-in-Acute

www.PosterPresentations.com