

# Bouveret Syndrome

George Demosthenes, D.O. PGY2, R1, Alicia Shaikh, D.O. PGY4, R3, Emma Bentley, D.O., PGY1, Mathieu Mehl, D.O. , PGY1, Jenna Gage, D.O. PGY5, R4, David Chung, M.D., Thomas Taylor, M.D.

Arnot Ogden Medical Center, Diagnostic Radiology Department, Elmira, NY

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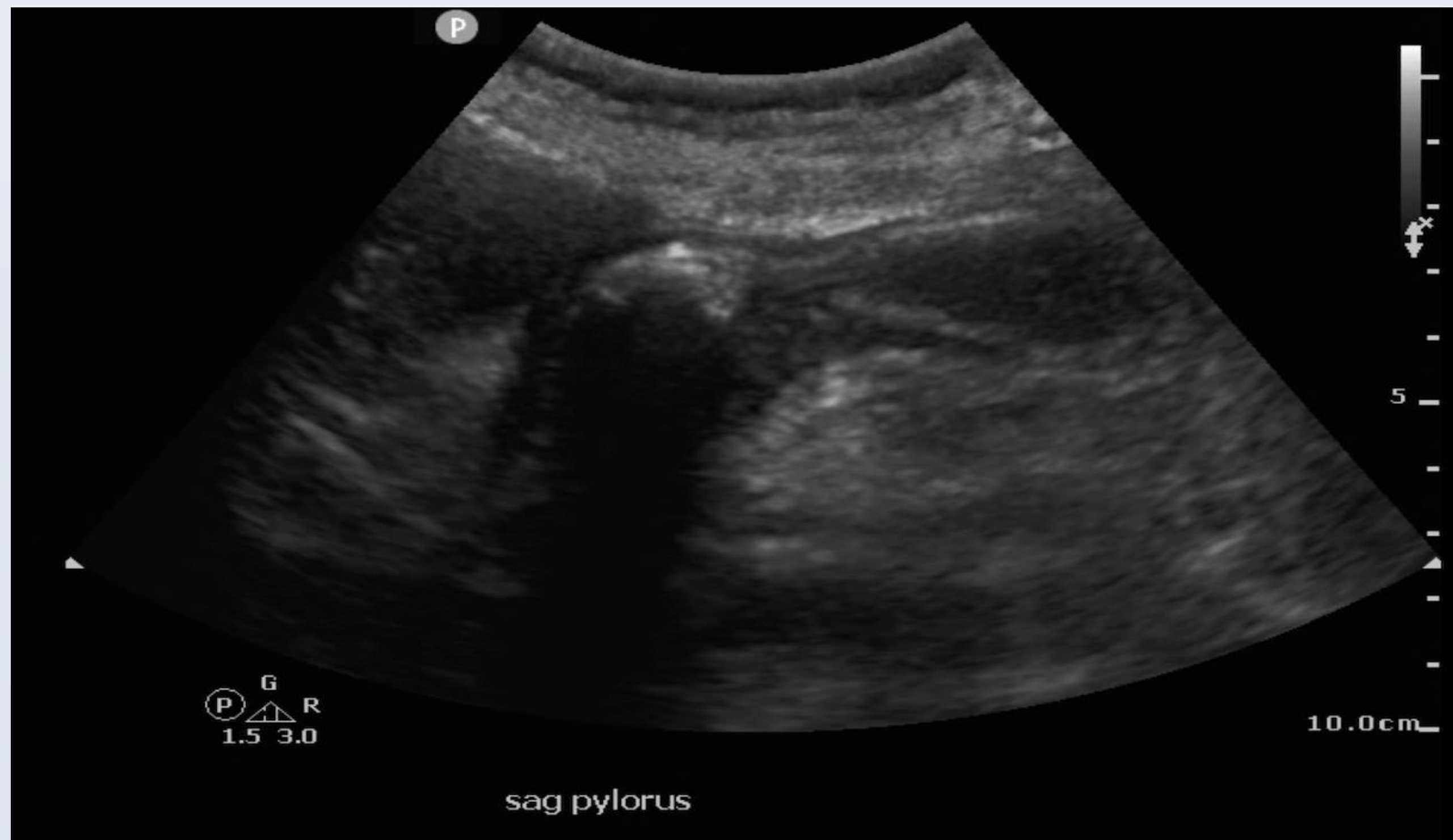
## INTRODUCTION

Gallstone ileus is seen in 1-4% of cases of cholelithiasis, with only 1-3% of these being gastric outlet obstruction, also known as Bouveret syndrome. The cause is chronic gallbladder inflammation, creating a bilioenteric fistula, which results in passage of a large (usually >2.5cm) stone from the gallbladder lumen and into either the duodenum or the pylorus. This rare entity occurs most frequently in elderly females (median age of 74 years). Rigler's triad of a dilated stomach, pneumobilia, and filling defect in the duodenum or pylorus are pathognomonic.

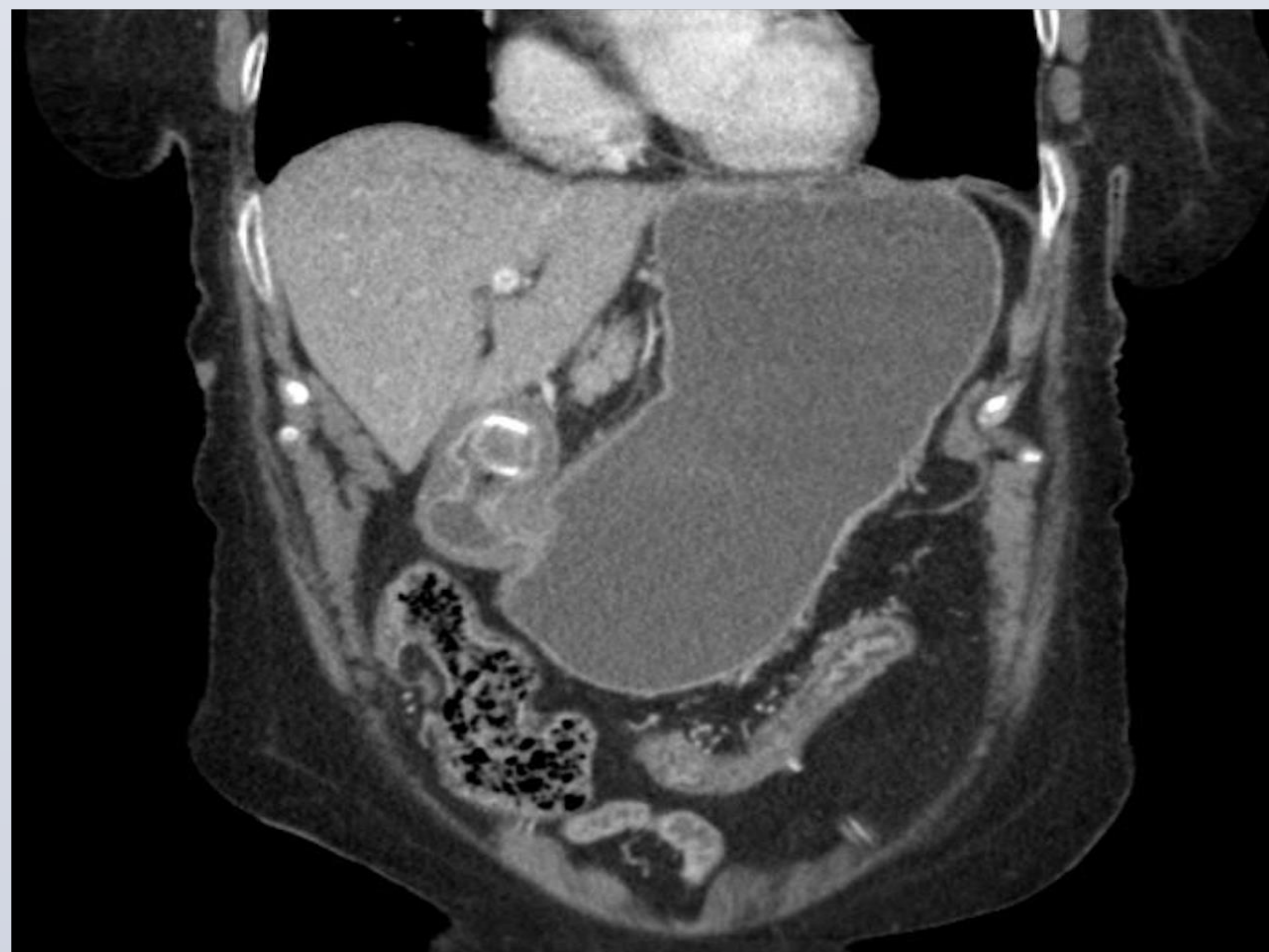
## PRESENTATION

An 80 year old female with a past medical history of cholelithiasis, coronary artery disease, grade 2 diastolic dysfunction, COPD, pulmonary hypertension, peripheral vascular disease, hyperparathyroidism, hypertension, and hyperlipidemia, presented to the emergency department with right upper quadrant and epigastric pain that began approximately 30 minutes after eating.

## IMAGING



US: Sonographic image through the pylorus demonstrates an echogenic and shadowing structure in the gastric antrum.



Coronal CT: Contrast enhanced computed tomography shows a calcified gallstone in the pylorus, markedly dilated gastric lumen, and small pneumobilia.



Sagittal CT: Contrast enhanced computed tomography demonstrates fluid adjacent to the gallbladder, suggestion of a bilioenteric fistula, and a calcified gallstone within the pylorus.

## FINDINGS

Ultrasound demonstrated a densely shadowing echogenic structure within the antrum of a dilated stomach. Subsequent contrast enhanced computed tomography demonstrated a markedly dilated gastric lumen with a calcified gallstone within the pylorus, as well as fluid surrounding the gallbladder, a small amount of pneumobilia, and the suggestion of a bilioenteric fistula.

## DISCUSSION

Initial treatment of choice for Bouveret syndrome is typically esophagogastroduodenoscopy (EGD), given it's lower complication rate and the classic setting of this entity occurring in elderly patients with multiple comorbidities that are not surgical candidates. Retrieval has a reported low success rate, but lithotripsy via endoscopy may be used as well. The goal of lithotripsy is either to retrieve the fragments or make them small enough to pass without causing distal obstruction.

After initial evaluation, our patient was transferred to a tertiary center where therapeutic EGD could be performed. EGD found an esophageal stricture and esophagitis, as well as a large obstructing gallstone in the duodenal bulb. Given the size of the gallstone and the presence of the esophageal stricture, the patient was treated with electrohydraulic lithotripsy (EHL) rather than retrieval of the stone. Following lithotripsy, a bleeding duodenal vessel was noted, which was successfully cauterized.

## REFERENCES

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## CONTACTS

George Demosthenes, D.O. - [gdemosthenes@arnothealth.org](mailto:gdemosthenes@arnothealth.org)  
Alicia Shaikh, D.O. - [ashaikh@arnothealth.org](mailto:ashaikh@arnothealth.org)  
Emma Bentley, D.O. - [Ebentely@arnothealth.org](mailto:Ebentely@arnothealth.org)  
Mathieu Mehl, D.O. - [Mmehl@arnothealth.org](mailto:Mmehl@arnothealth.org)  
Jenna Gage, D.O. - [Jgage@arnothealth.org](mailto:Jgage@arnothealth.org)  
David Chung, M.D.  
Thomas Taylor, M.D.