

Treatment of Hyperkinetic Gallbladder with Cholecystectomy: A Case Report and Literature Review

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Background

- Hyperkinetic gallbladder, i.e. hyperkinetic biliary dyskinesia (HBD)
- Gallbladder contracts too frequently or too strongly, leading to biliary colic (pain, nausea, and vomiting)
- Hepatobiliary iminodiacetic acid (HIDA) scan demonstrating over 80% ejection fraction (EF) (Normal: 35-80%)
- HBD is still poorly understood as it has only recently become a topic of research. The validity of the diagnosis is up for debate as new technology is being utilized to support and understand the diagnosis more.
- Some studies have demonstrated favorable outcomes with cholecystectomy in patients with HBD

Case Presentation

- 71-year-old female with past medical history of gastroesophageal reflux disease, asthma, and recurrent urinary infections presented with right upper quadrant pain with radiation to the back without associated nausea, emesis or fever.
- Laboratory workup revealed no leukocytosis (WBC 7.2) with mild transaminitis (AST 74, ALT 37).
- Abdomen soft with significant right upper quadrant tenderness on exam
- Ultrasound of the abdomen revealed positive sonographic Murphy's sign with no cholelithiasis
- HIDA scan showed normal gallbladder filling with EF of 81% after 3.3 mcg of cholecystokinin (CCK)
- Patient underwent robotic cholecystectomy
- Significant symptom improvement post-operatively as measured by SF-36 Health Assessment

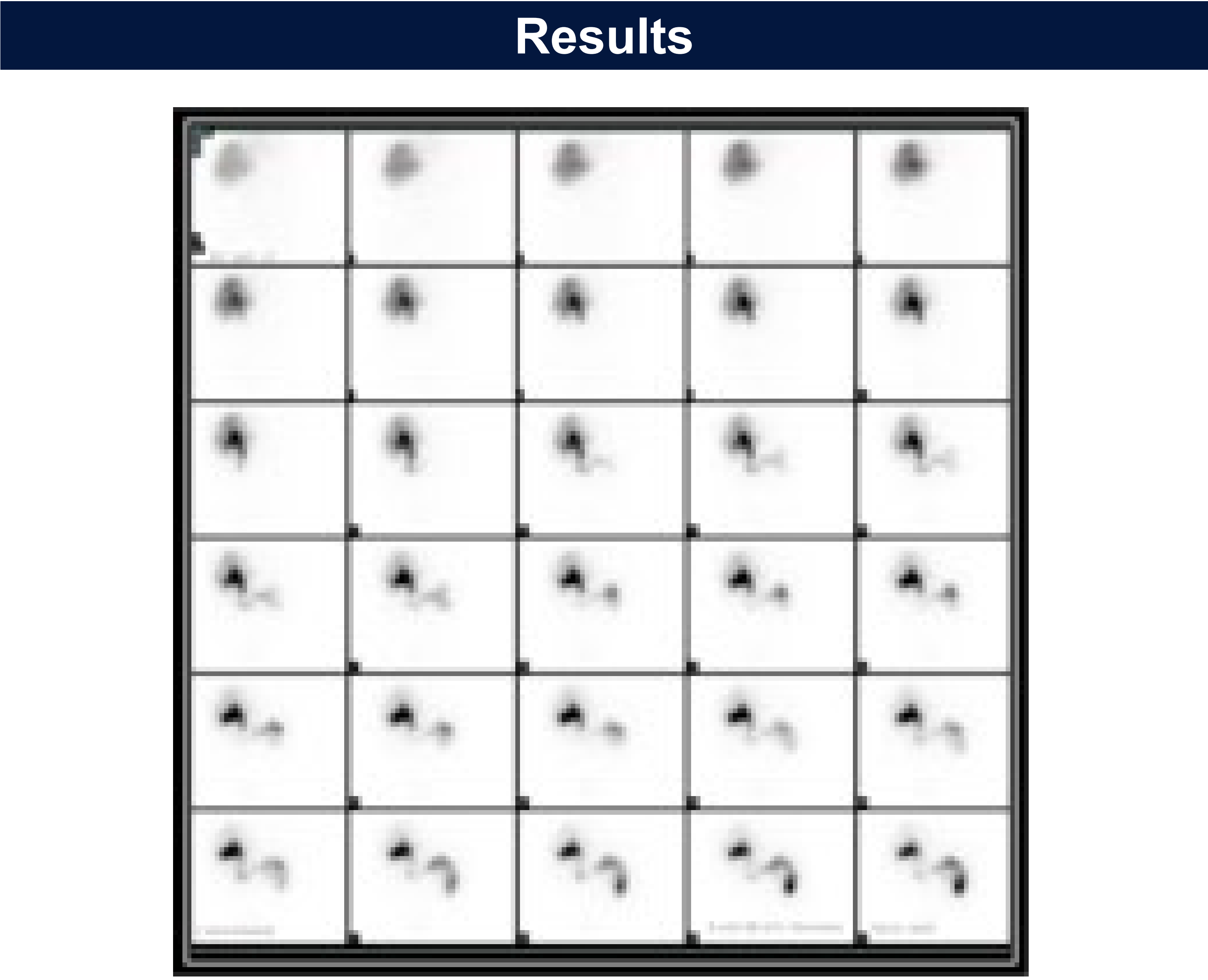


Figure 1: HIDA scan demonstrated ejection fraction of 81% after 3.3 mcg of CCK

		Average	
Scale	Number of Items	Pre-op	Post-op
Physical functioning	10	0	75
Role limitations due to physical health	4	0	50
Role limitations due to emotional problems	3	25	50
Energy / Fatigue	4	6.25	43.75
Emotional well-being	5	20	50
Social functioning	2	50	50
Pain	2	22.5	22.5
General Health	5	15	45

Figure 2. Results of SF-36 Health Assessment completed one day prior to cholecystectomy and two weeks postoperatively. Scales are normalized using a scoring algorithm, resulting in a score that spans from 0 to 100. Elevated scores reflect a more favorable health status, with a mean score of 50 established as a standard reference point across all scales.

Discussion

- While some studies have demonstrated favorable outcomes with surgical intervention in HBD. There is not a universal consensus on diagnosis and management for optimal patient outcomes.
- In patients with no co-existing gallbladder disease and an EF of >80%, symptomatic relief has been lacking in the literature which has made management of this condition to be subpar.
- Hyperkinetic gallbladder should therefore be included in the differential for patients presenting with biliary colic without other co-existing gallbladder disease.

Conclusion

- In patients with hyperkinetic biliary dyskinesia with EF>80%, it is important to consider cholecystectomy for symptom improvement or relief in the absence of other gallbladder disease.

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