PW 1.15

International Surgical Week
The World's Congress of Surgery
isw2024.org
Kuala Lumpur, Malaysia
25-29 August 2024

SURGICAL OUTCOMES OF PERCUTANEOUS TRANSHEPATIC GALLBLADDER DRAINAGE FOR HIGH-RISK PATIENTS WITH MODERATE AND SEVERE ACUTE CHOLECYSTITIS: AN EXPERIENCE AT A TERTIARY REFERRAL CENTRE.

Margarita Ptasnuka[1,2], **Kristaps Atstupens**[1], **Vladimirs Fokins**[1,2], **Haralds Plaudis**[1,2]

[1]Department of General and Emergency Surgery, Riga East Clinical University Hospital, [2]Department of Surgery, Riga Stradins University.

aslimnica RIGA EAST UNIVERSITY HOSPITAL

RĪGA STRADIŅŠ UNIVERSITY

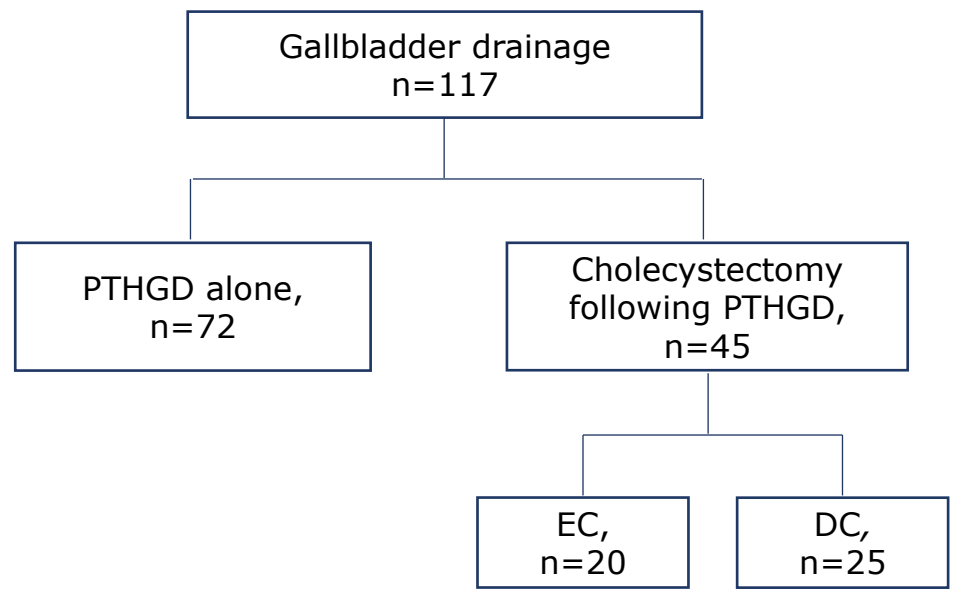
Introduction

Acute cholecystitis (AC) poses a life-threatening challenge for patients with serious comorbidities. We aimed to evaluate the effectiveness of percutaneous transhepatic gallbladder drainage (PTHGD) treatment for moderate and severe AC in high-risk patients and compare the benefits between early (EC) and delayed cholecystectomy (DC) after PTHGD.

Materials and Methods

A retrospective analysis included 117 patients with grade II and grade III AC, and who had an ASA grading of ≥3, undergoing PTHGD at Riga East Clinical University Hospital between January 2020 and May 2023. Patients who received surgical treatment after PTHGD within one week following the admission were assigned to the early group, while the patients who were operated after one week or admitted in the second visit were assigned to the delayed group.

Fig 1. Patient flow across the study.



Results

Baseline characteristics of the study patients are shown in Table 1.

Table 1. Clinical characteristics.

Characteristics	All patients, n=117
Age, years, median (IQR)	81 (74-86)
Gender	
Male	50 (42.7)
Female	67 (57.3)
Comorbidity	
Cardiovascular disease	109 (93.2)
Pulmonary disease	24 (20.5)
Liver disease	7 (6.0)
Chronic renal insufficiency	39 (33.3)
Diabetes	34 (29.1)
Neurological disease	40 (34.2)
Other	79 (67.5)
ASA classification	
ASA 3	76 (65.0)
ASA 4	41 (35.0)
Sepsis	
Presence of sepsis	27 (23.1)
Type of cholecystitis	
Calculous	111 (94.9)
Acalculous	6 (5.1)
Severity of acute cholecystitis	
Grade II	90 (76.9)
Grade III	27 (23.1)
Presence of choledocholithiasis	
yes	14 (12.0)
ERCP	12 (10.3)
Catheter complication	
Without complication	107 (91.5)
Dislocation	3 (2.6)
Bile leak	6 (5.1)
Other	1 (0.9)
ICU stay, days (median, IQR)	5.5 (4.0-10.0)
Mortality (n, %)	8 (6.8)
Hospital stay, days (median, IQR)	13 (10-18)
Readmission due to AC	22 (18.8)

The differences in rate of readmissions and reinterventions between drainage and cholecystectomy groups were not statistically significant (29.2% vs 20.0%, p=0.28, and 16.7% vs 11.1%, p=0.59).

No significant differences in operative time, conversion rate, postoperative complications, or length of stay between EC and DC were observed (p>0.05), see in Table 2. Open surgery was the preferred option in DC group, p=0.04.

Table 2. Comparison of surgical results between study groups.

Variables		EC after PTHGD, n=20	DC after PTHGD, n=25	p value
Surgery access				
	LC	13 (65.0)	9 (36.0)	0.044
	OC	7 (35.0)	16 (64.0)	
Conversion				
	yes	1 (5.3)	4 (16.0)	0.370
Surgery time, minute		95.79±42.79	109.8±43.7	0.543
Post-operative complication		5 (25.0)	8 (32.0)	0.745
ICU stay, days (mean, ±SD)		7.5 ± 3.11	7.0 ±3.94	0.323
Post-operative hospital stay, days (mean, ±SD)		4.64 ±2.2	8.31 ±5.7	0.178
Mortality (n, %)		0	0	
Hospital stay, days (mean, ±SD)		14.3 ±8.5	20.84 ± 8.96	0.237

Conclusion

PTHGD could be an effective alternative treatment for high-risk patients with moderate and severe AC. EC after PTHGD is feasible for patients upon improvement of their physical condition without significant postoperative events.