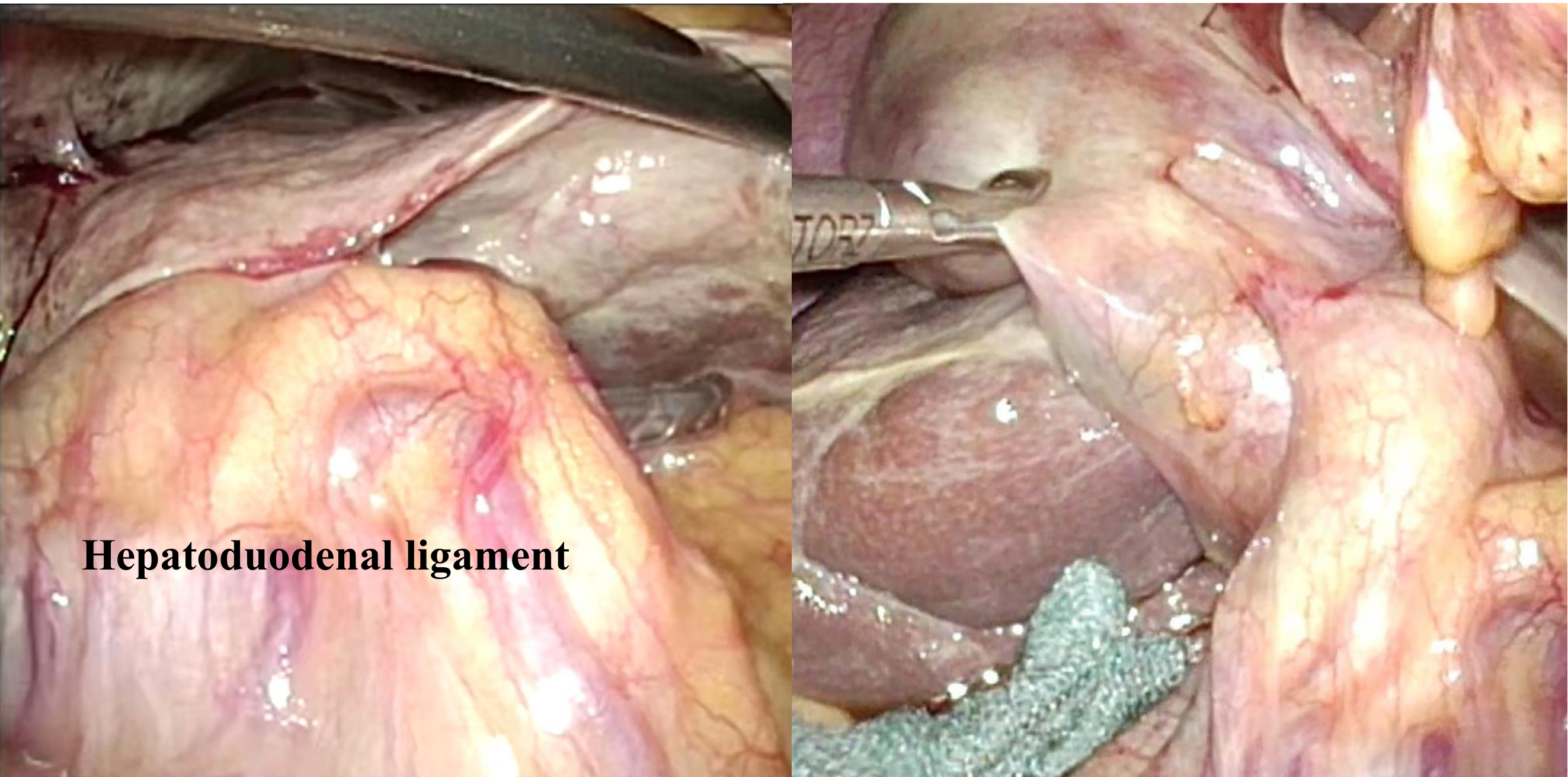
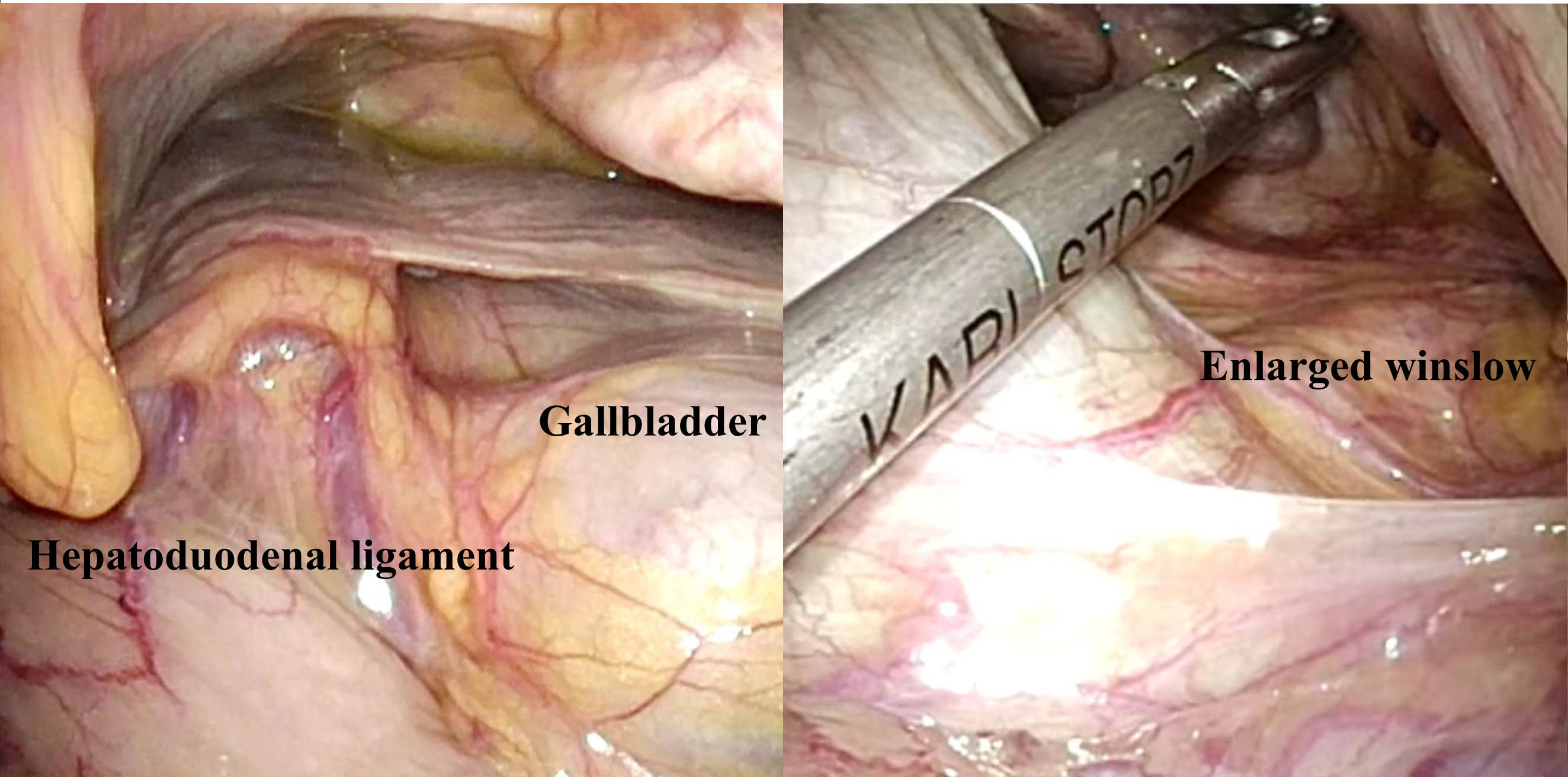


Gallbladder Herniation into the Foramen of Winslow: A Case Report



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History of present illness

An 89-year-old woman was admitted to our hospital with obstructive jaundice. On examination, she had tenderness in the left upper quadrant. Laboratory tests revealed obstructive jaundice. Contrast-enhanced abdominal CT demonstrated that the gallbladder had deviated to the left side of the liver and herniated into the lesser sac, with the hepatoduodenal ligament displaced anteriorly.

CBC				Biochemistry			
WBC	7,700	/μL		TP	6.7	g/dL	
Neut	75	%		Alb	3.5	g/dL	
Lymp	17	%		LDH	387	IU/L	
Hb	11.3	g/dL		T-bil	4.6	mg/dL	
Hct	33.1	%		D-bil	3.1	mg/dL	
Plt	19.3	10 ³ /μL		AST	416	IU/L	
Coagulation				ALT	304	IU/L	
PT-INR	1.1			ALP	328	IU/L	
APTT	25.5	sec		γ-GTP	365	IU/L	
				BUN	20	mg/dL	
				Cre	0.88	mg/dL	
				Na	145	mmol/L	
				K	2.6	mmol/L	
				Cl	99	mmol/L	
				CRP	0.56	mg/dL	

Preoperative diagnosis:

- ▶Gallbladder hernia through the foramen of Winslow
- ▶Acute cholecystitis
- ▶Obstructive jaundice

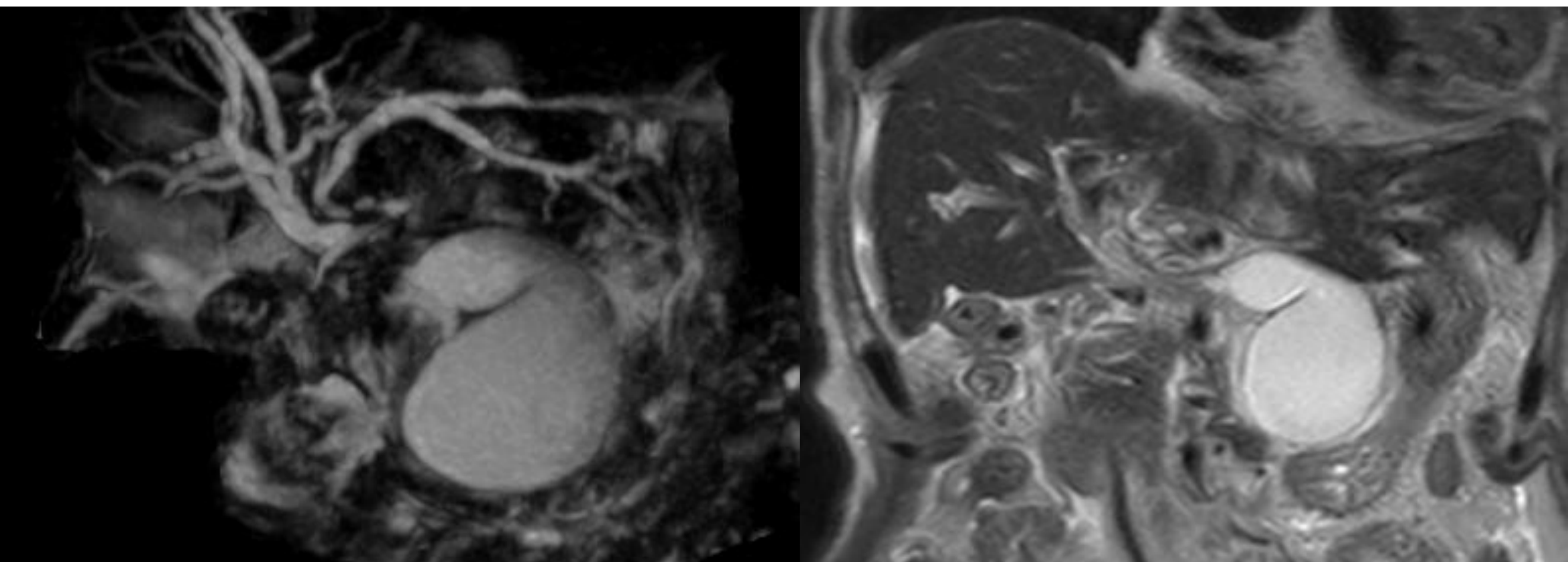
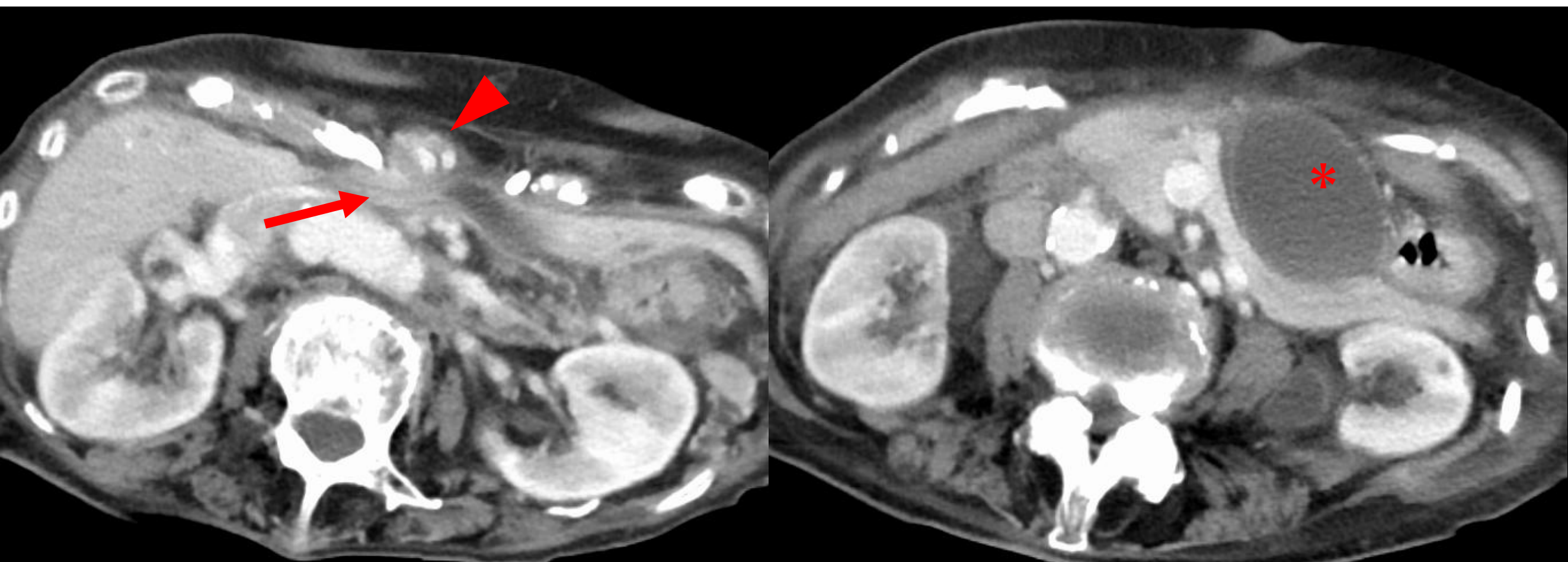
Treatment strategy:

- ▶Urgent surgery

Laboratory data

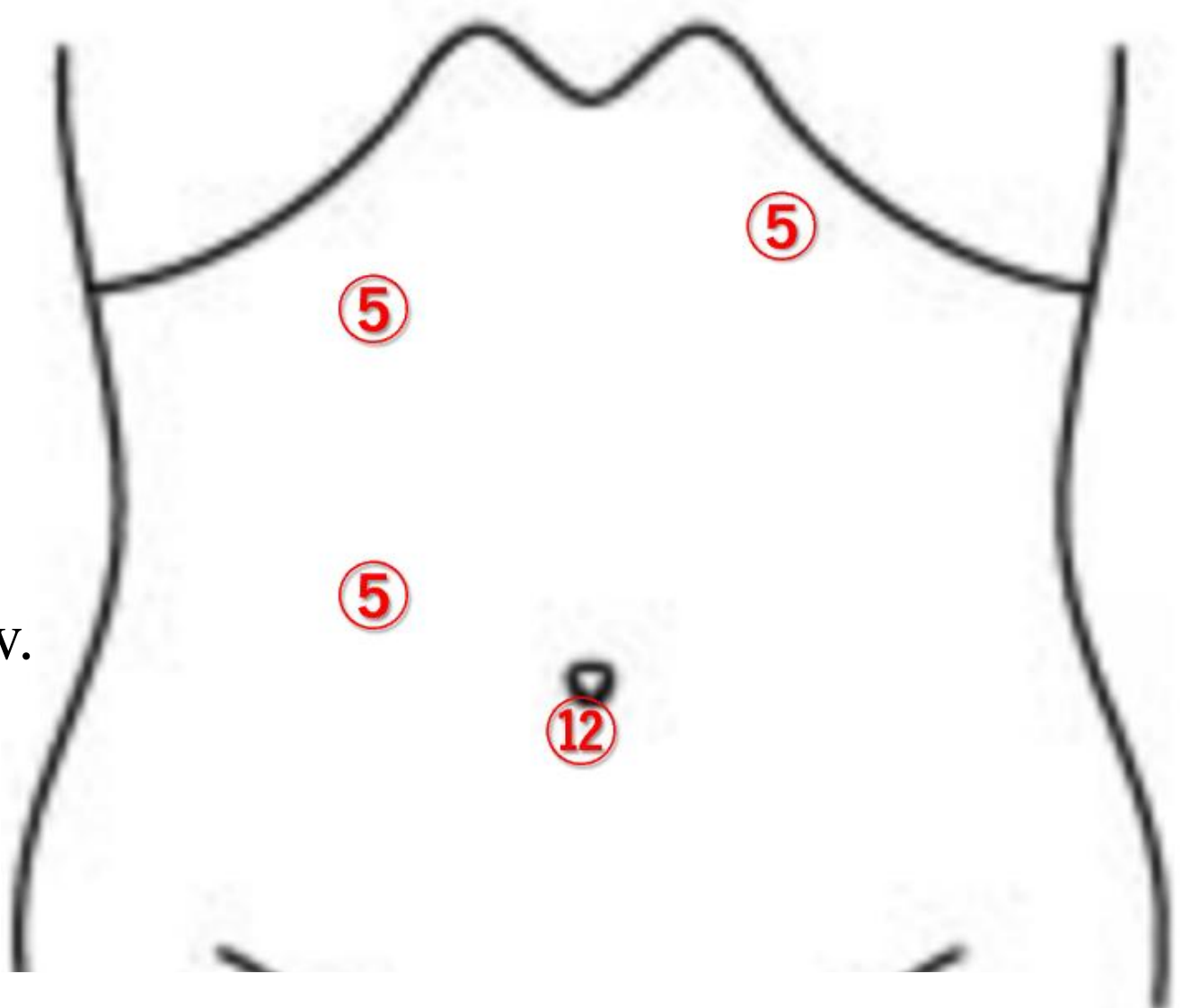
MRCP

Abdominal contrast-enhanced CT



Laparoscopic cholecystectomy
operative time : 123 minutes
blood loss : uncountable

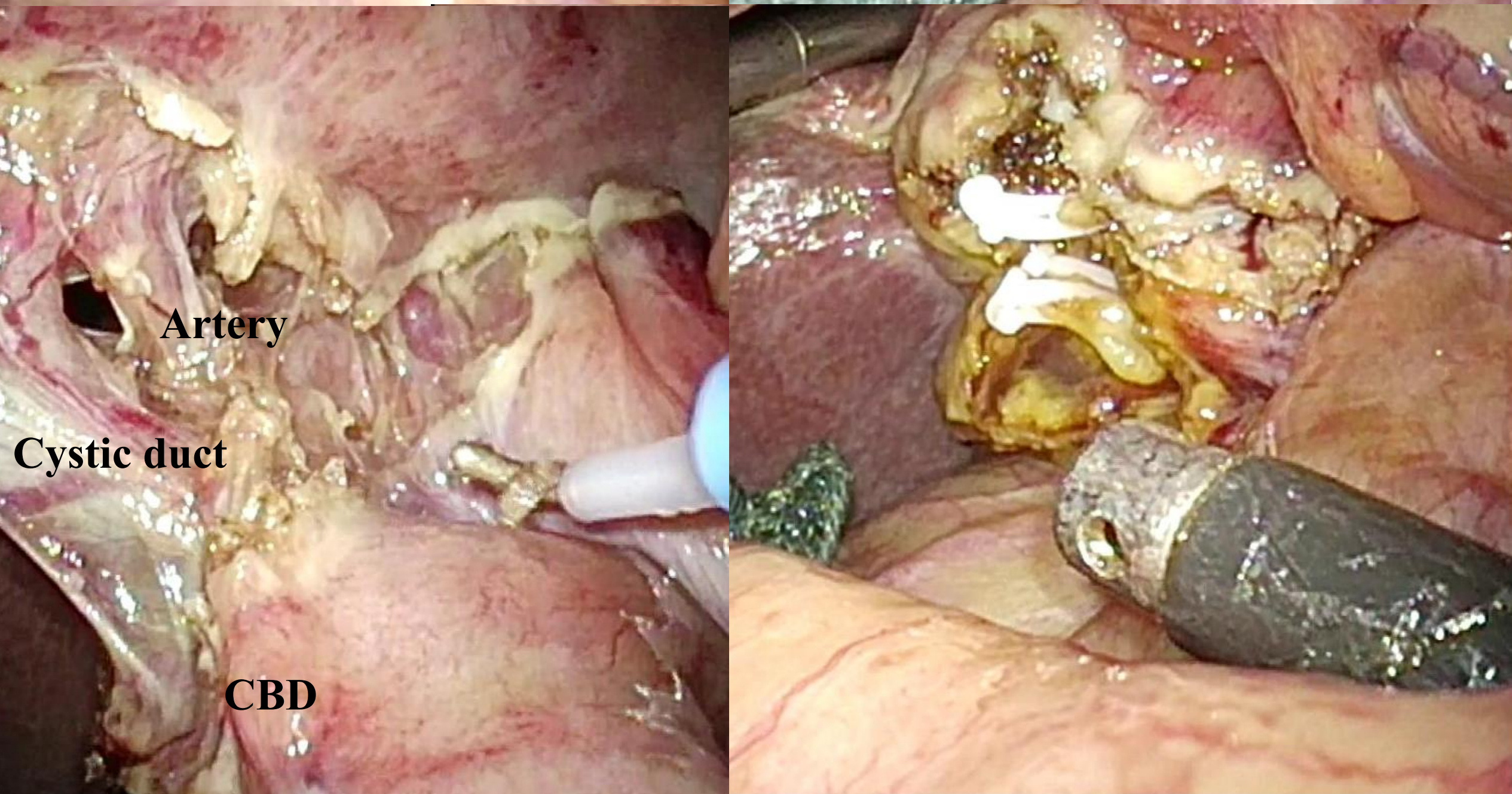
Gallbladder was found to be twisted 180 degrees clockwise and herniated into the lesser sac through the foramen of Winslow.



Type of internal epiploic hernia

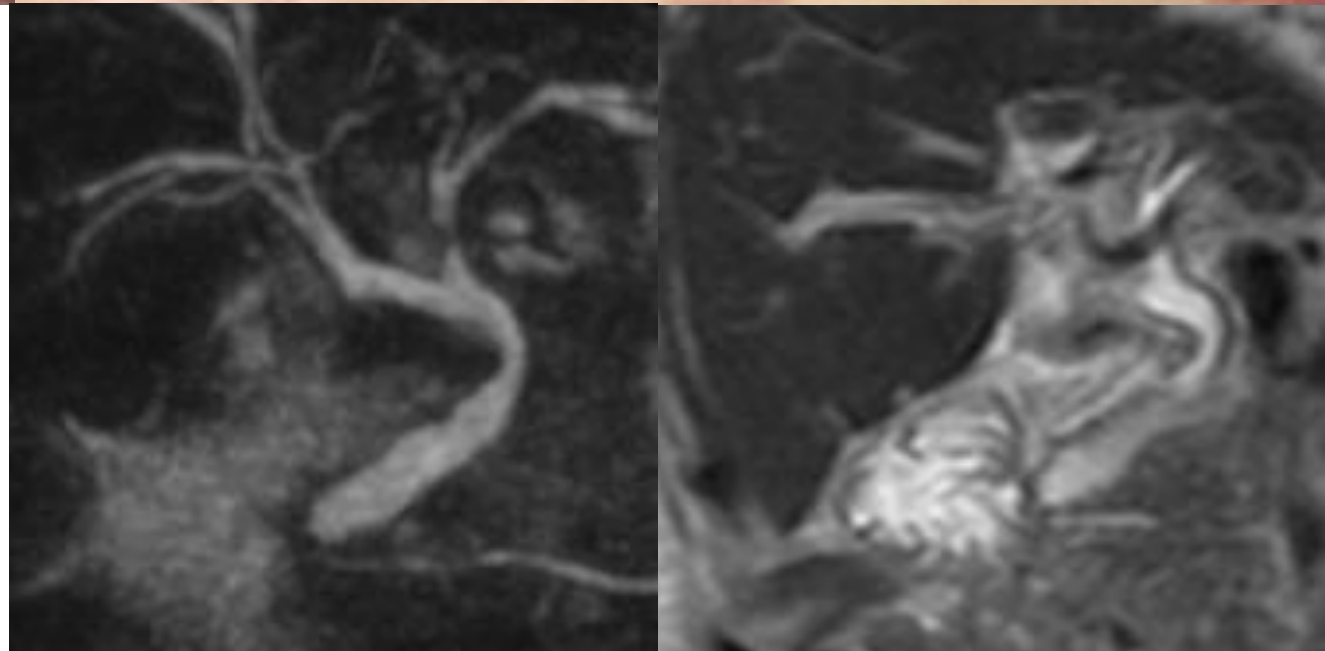
	Contents	Incidence
Type I	Small Bowel	65%
Type II	Terminal Ileum, Caecum, Ascending colon	25%
Type III	Transverse colon	7%
Type IV	Gallbladder, Omentum, Other Intraoperative structures	3%

Reported cases of Gallbladder Herniation into the Foramen of Winslow



MRCP(after a week)

The postoperative course was normal, follow-up MRCP showed no stenosis.



Discussion

Herniation into the foramen of Winslow, typically caused by enlargement of the foramen, accounts for 3–8% of internal hernias. The most commonly herniated organs are the small intestine, cecum, and transverse colon, in that order. Gallbladder herniation (Type IV) is extremely rare. A search of previous reports in PubMed and Igaku Chuo Zasshi identified the present case as the 22nd reported case. It occurs predominantly in women with a floating gallbladder and is frequently associated with gallbladder torsion. Although few reports describe management of the hernia orifice (the foramen of Winslow), most reports state that the orifice was not closed and was instead left open with drain placement.

Summary

Although gallbladder herniation into the foramen of Winslow is extremely rare, it can be readily diagnosed by imaging, and laparoscopic surgery is a safe and feasible treatment when appropriately diagnosed.

No.	Year	Author	Age	Sex	Physical symptoms	Clinical findings				Surgery	Operative findings		
					Abdominal pain	Jaundice	Cholecystitis	GB stone	CBDstenosis		Floating	Torsion	Necrosis
1	1951	McCrea	68	F	Epigastric pain	unkown	(+)	(+)	unkown	Cholecystectomy	(-)	(+)	(+)
2			22	F	Right upper quadrant pain	unkown	unkown	unkown	unkown	Cholecystopexy, plication of epiploic foramen	GrossB	unkown	unkown
3			14	F	Intermittent abdominal pain	unkown	unkown	unkown	unkown	Cholecystopexy, appendectomy	GrossB	unkown	unkown
4	1966	Vint	26	F	Upper abdominal pain	unkown	(+)	unkown	unkown	Cholecystopexy, vagotomy, pyloroplasty	GrossB	unkown	unkown
5			47	F	Intermittent epigastric/right upper quadrant pain	unkown	unkown	(-)	unkown	Cholecystectomy, pyloroplasty	GrossB	unkown	(-)
6	1967	Dardik	27	F	Intermittent right upper quadrant pain	(-)	(-)	unkown	(-)	Cholecystectomy, plication of epiploic foramen, appendectomy	GrossA	(-)	(-)
7	1969	JL.Carmichael	N/A		N/A			N/A		N/A			
8	1976	Mattey	79	F	Intermittent abdominal pain	unkown	unkown	(+)	unkown	Cholecystectomy	(+)	unkown	unkown
9	1980	Borkar	30	F	Upper abdominal pain	unkown	(-)	(-)	unkown	Cholecystectomy	GrossB	unkown	(-)
10	1984	Bach	73	F	Left upper abdominal pain	(-)	(+)	(+)	unkown	unknown (Cholecystectomy?)	(+)	(+)	(+)
11	1996	Nagahori	84	F	Upper abdominal pain	(-)	(+)	(+)	(+)	Cholecystectomy	GrossB	Clock wise	(+)
12	2001	Takahashi	89	F	Upper abdominal pain	(-)	(+)	(-)	(-)	Cholecystectomy+Choledochotomy+T-tube	GrossB	Clock wise	(+)
13	2008	Yamaie	97	F	Epigastric pain	(+)	(+)	(+)	(+)	Cholecystectomy	GrossA	Clock wise	(-)
14	2009	Izumi	68	F	lower abdominal pain	(-)	(+)	(+)	(-)	Laparoscopic cholecystectomy	GrossB	(-)	(-)
15	2010	Yamamoto	68	F	Upper abdominal pain	(+)	(+)	(+)	(-)	PTGBD→Laparoscopic cholecystectomy	GrossB	Clock wise	(-)
16	2012	Fukumoto	86	F	Upper abdominal pain	(-)	(+)	(-)	(-)	Cholecystectomy	GrossB	Clock wise	(+)
17	2013	Numata	90	F	(-)	(+)	(+)	(+)	(+)	Laparoscopic cholecystectomy	(-)	(-)	(-)
18	2017	Waku	79	F	Right upper quadrant pain	(-)	(+)	(-)	(-)	Laparoscopic cholecystectomy	GrossB	Counterclock wise	(+)
19	2020	Nakane	92	F	Right upper quadrant pain	(-)	(+)	(-)	(-)	Laparoscopic cholecystectomy	GrossB	Counterclock wise	(+)
20	2020	Nguyen	70	M	Right upper quadrant pain	(+)	(-)	(-)	unkown	Laparoscopic→conversion to open cholecystectomy	GrossB	(+)	(+)
21	2024	Ishiguro	91	F	Left upper abdominal pain	(-)	(+)	(+)	(+)	Laparoscopic cholecystectomy	GrossA	(-)	(-)
22	2025	Our case	89	F	Left upper abdominal pain	(+)	(+)	(-)	(+)	Laparoscopic cholecystectomy	GrossB	Clock wise	(-)