

A laparoscopic surgical view showing the common bile duct. The duct is a yellowish, tubular structure running through the center of the frame. It is surrounded by reddish, vascularized tissue. Several surgical instruments, including forceps and a clip, are visible, manipulating the duct and surrounding tissue. The background is a soft, out-of-focus pinkish-red color.

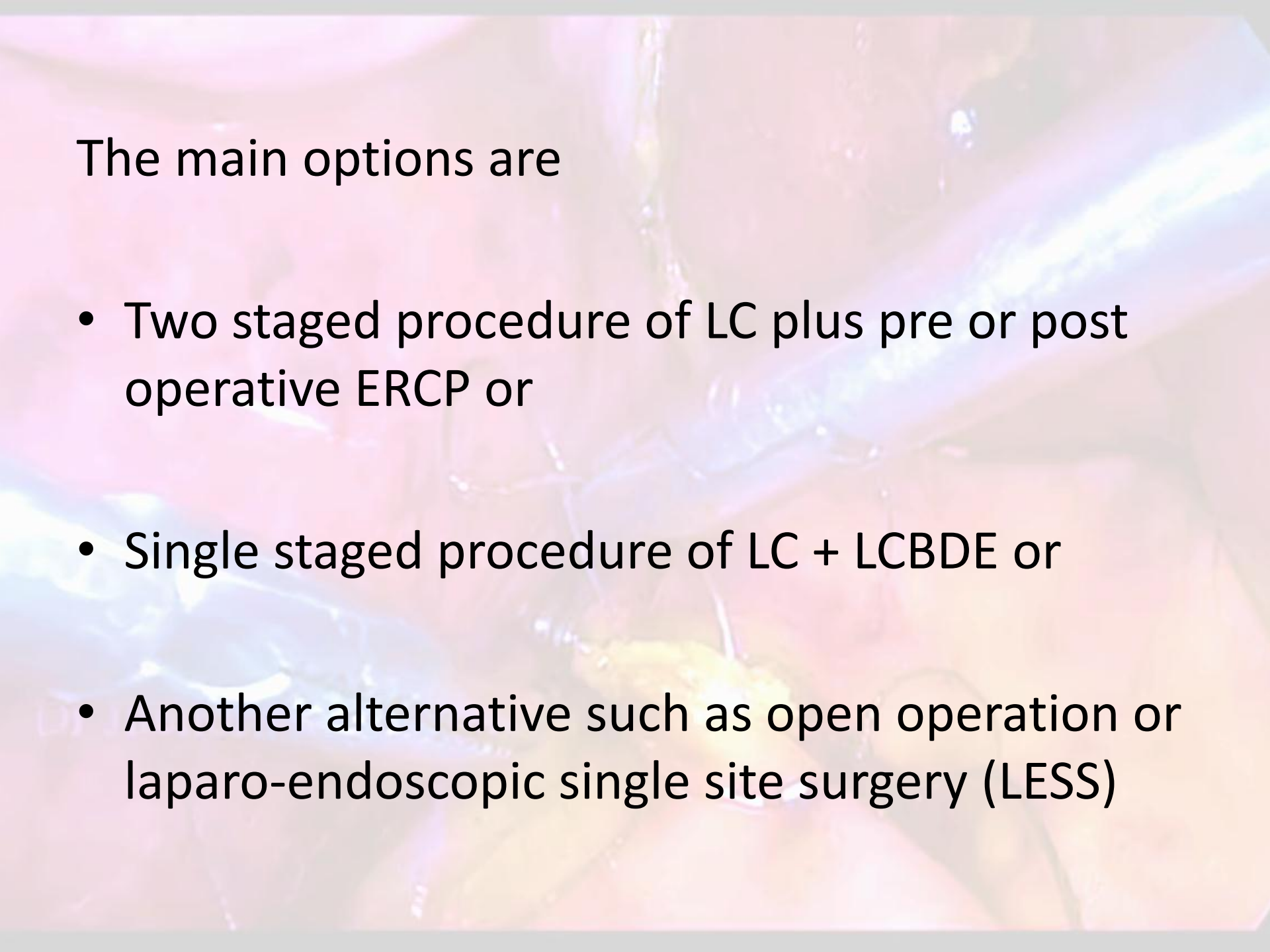
Outcomes of Laparoscopic Common Bile Duct Exploration

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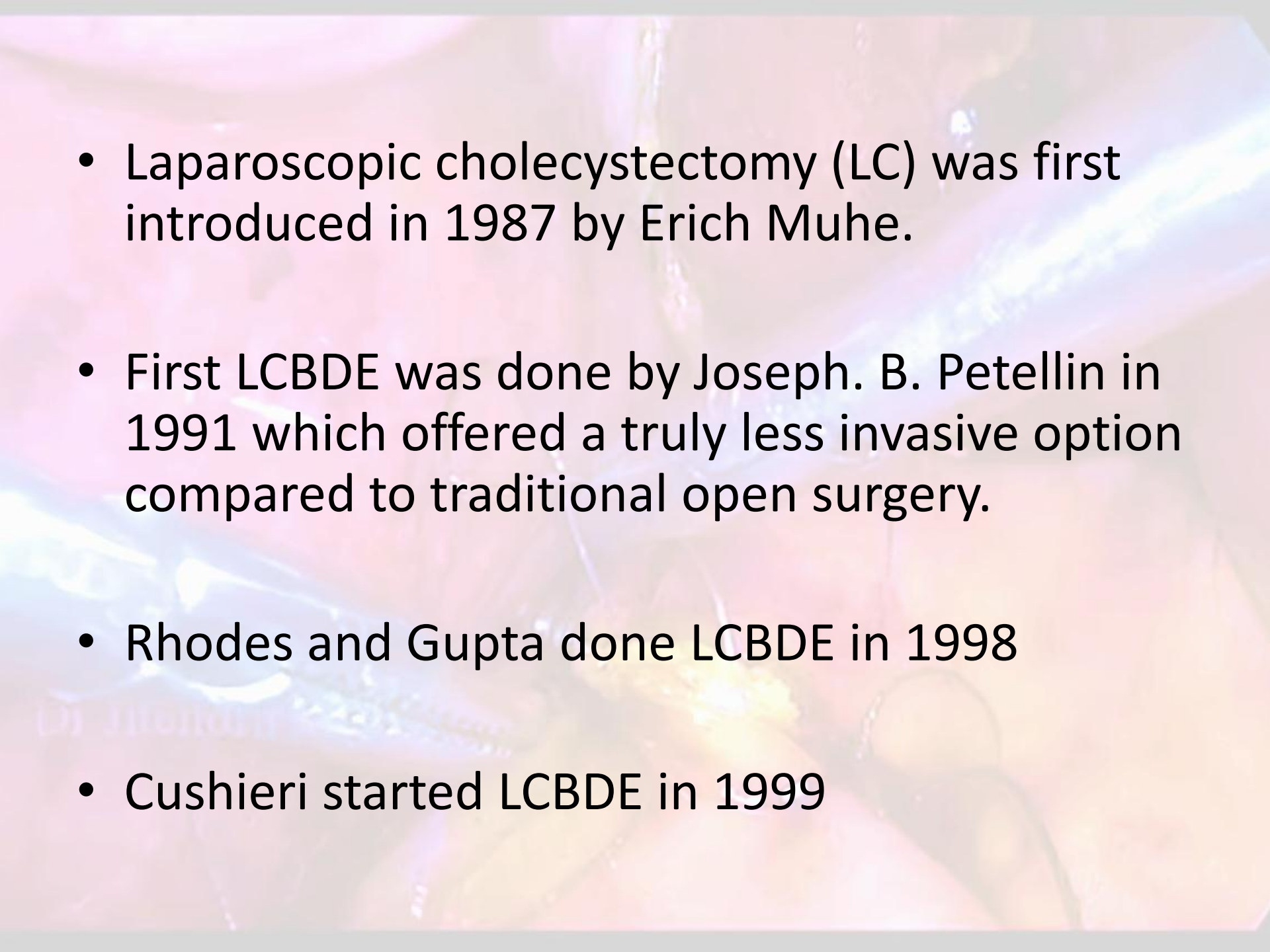
Introduction

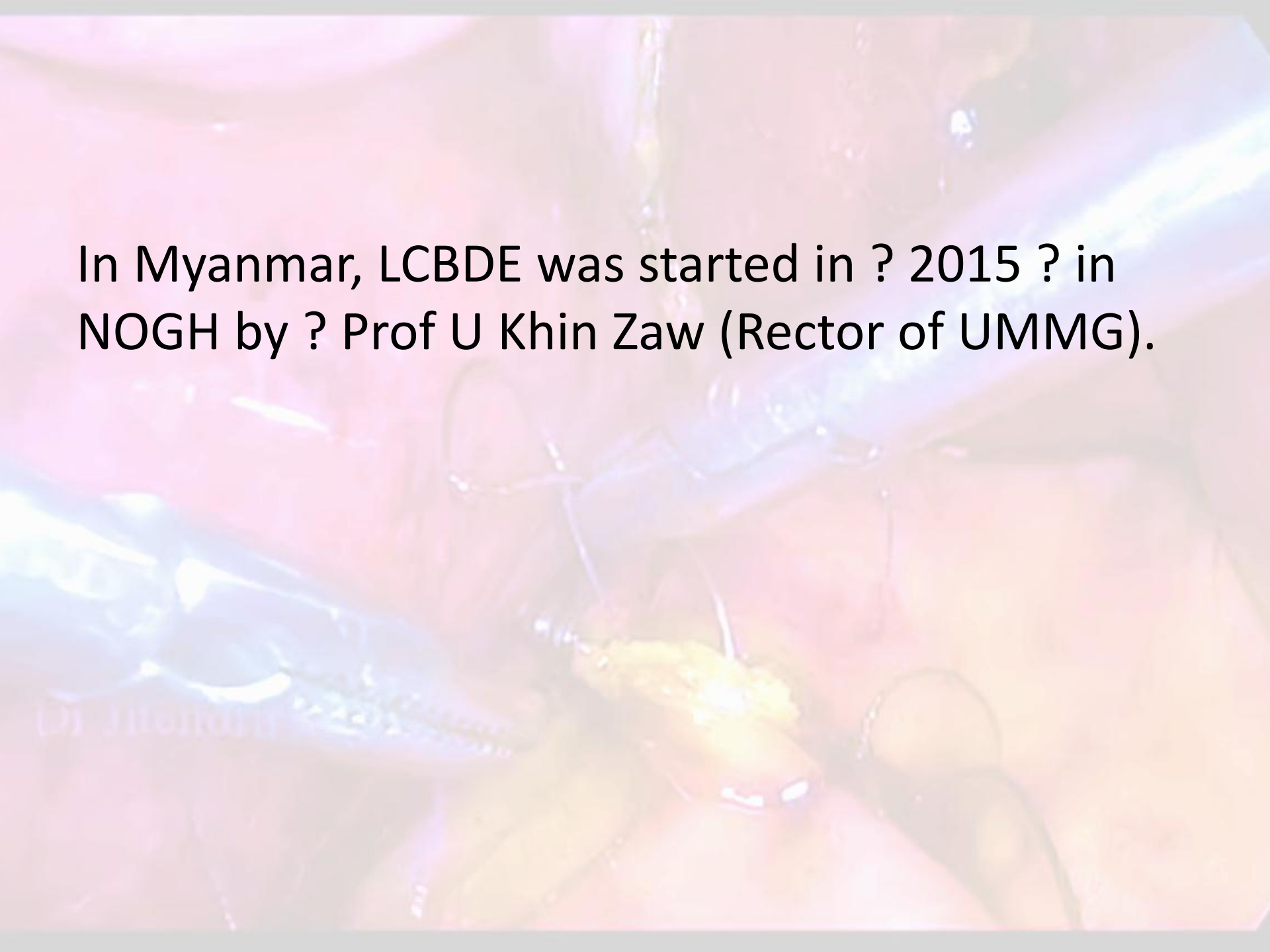
- Common bile duct stones are found in 10-15 percent of patients undergoing cholecystectomy.
- According to the EAES, these patients should be treated even if asymptomatic.
- But the ideal treatment for common bile duct stones is still controversial.

The background of the slide is a blurred, close-up photograph of a surgical procedure. It shows various anatomical structures, likely the gallbladder and biliary ducts, with surgical instruments and sutures visible. The lighting is bright, typical of an operating room.

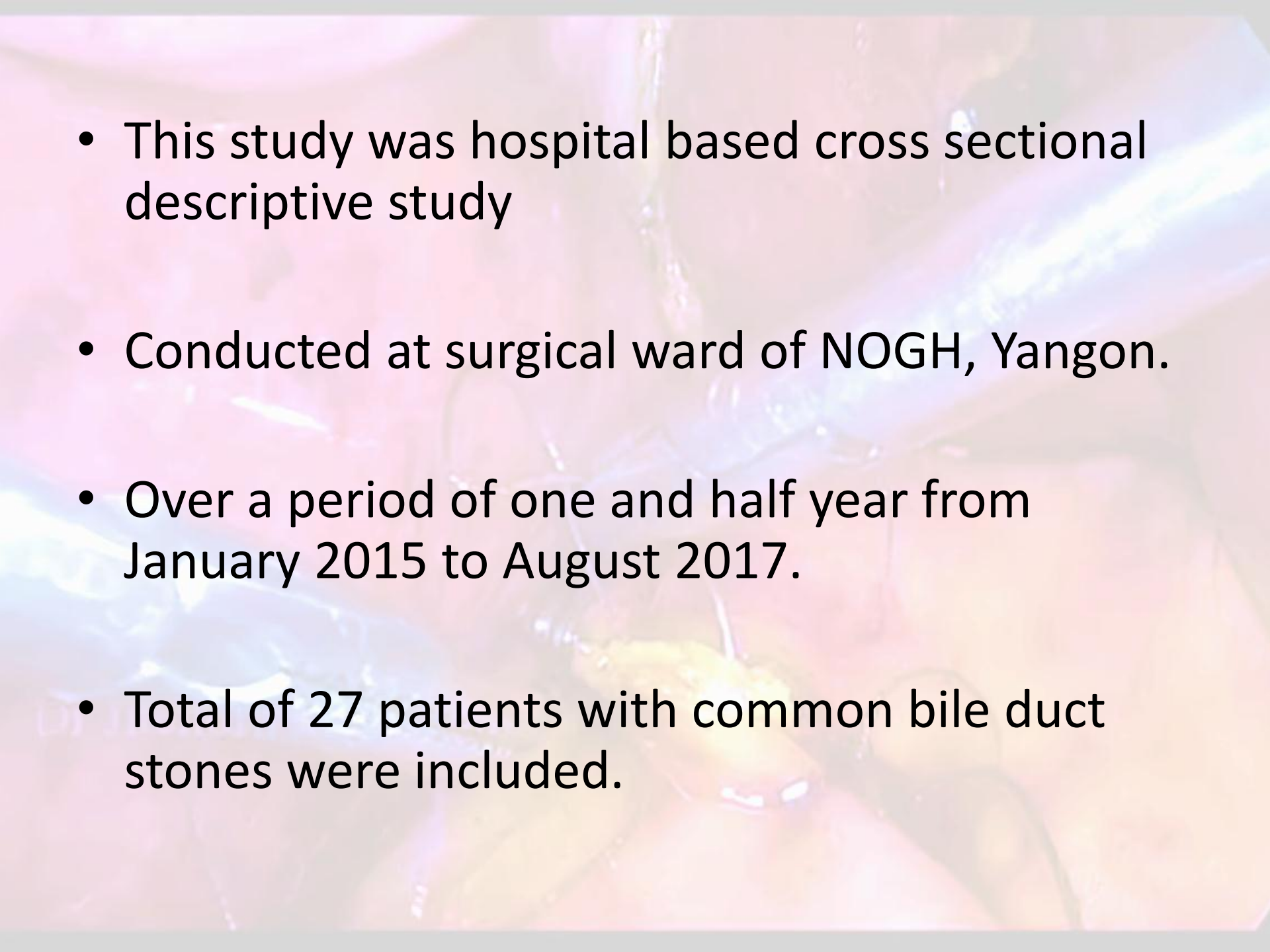
The main options are

- Two staged procedure of LC plus pre or post operative ERCP or
- Single staged procedure of LC + LCBDE or
- Another alternative such as open operation or laparo-endoscopic single site surgery (LESS)

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- The background of the slide is a blurred, low-angle photograph of a laparoscopic surgical procedure. It shows surgical instruments, including a grasper and a dissector, manipulating internal organs within a body cavity. The lighting is bright, typical of an operating room, and the colors are somewhat desaturated, focusing on the metallic and fleshy tones of the surgical field.
- Laparoscopic cholecystectomy (LC) was first introduced in 1987 by Erich Muhe.
 - First LCBDE was done by Joseph. B. Petellin in 1991 which offered a truly less invasive option compared to traditional open surgery.
 - Rhodes and Gupta done LCBDE in 1998
 - Cushieri started LCBDE in 1999



In Myanmar, LCBDE was started in ? 2015 ? in
NOGH by ? Prof U Khin Zaw (Rector of UMMG).

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- This study was hospital based cross sectional descriptive study
 - Conducted at surgical ward of NOGH, Yangon.
 - Over a period of one and half year from January 2015 to August 2017.
 - Total of 27 patients with common bile duct stones were included.

Aim

- To find out the outcomes of laparoscopic common bile duct exploration in patients with common bile duct stone.

Objectives

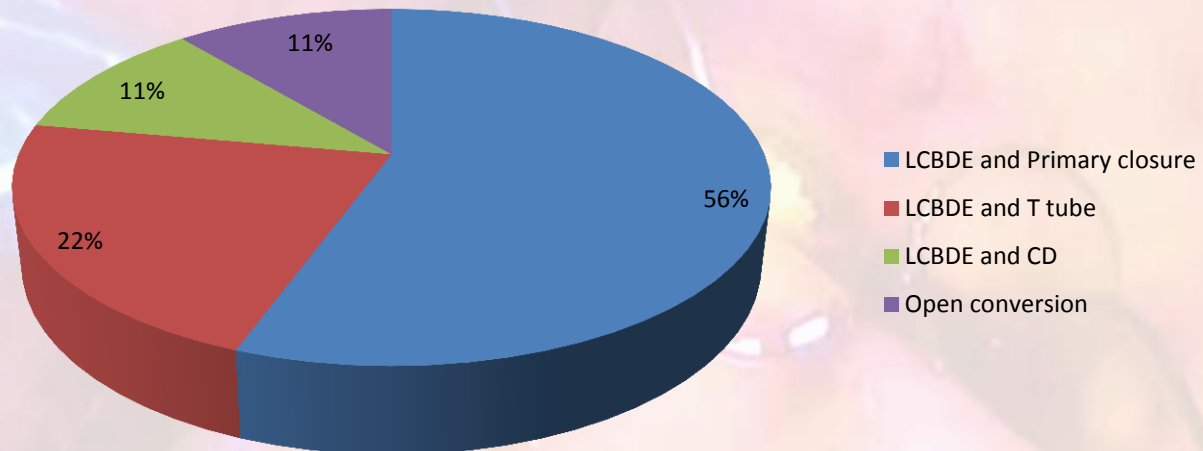
- To describe the demographic data of patients with stone in common bile duct.
- To determine the percent of successful operation, percent of conversion, percent of stone clearance and percent of residual stone after laparoscopic common bile duct exploration.
- To determine post operative complications of laparoscopic common bile duct exploration.

Demographic data	Values	Ranges
Age		
< 40 yrs	8 (29.6%)	
40-60 yrs	17 (63%)	
>60 yrs	2 (7.4%)	
Median age	53.7±0.4 yrs	(30-72yrs)
Sex		
Male	8 (29.6%)	
Female	19 (70.4%)	

Characteristics of common bile duct stones and common bile duct status		Number	Percent
Size of largest stones	< 20 mm	14	51.9%
	> 20 mm	13	48.1%
Number of stones	≤ 4 in No.	16	59.3%
	> 4 stones	11	40.7%
Presence of intra-hepatic duct stones	Present	16	59.3%
	Absent	11	40.7%
Size of CBD	Less than 20 mm	15	55.6%
	More than 20 mm	12	44.4%

Type of operation	Frequency	Percents
LCBDE and Primary closure	15	55.6%
LCBDE and T tube	6	22.2%
LCBDE and CD	3	11.1%
Open conversion	3	11.1%

Type of operation



Operative outcome	Number	Percent
Percent of stone clearance	23	85.2%
Percent of residual stone	4	14.8%
Percent of success rate of laparoscopic operation	24	88.9%
Percent of open conversion	3	11.1%

	Lap primary closure	Lap T tube	Lap CD	Open conversion
Operative time (mins)	131.3 ± 10.3	150±18.7	205±30.4	215±22
Post-op hospital stay (Days)	5±0.7	8.2±3.9	7.3±0.6	7.7±0.6
Morbidity	-	2	-	1
Mortality	-	-	-	-

	Stone size (mm)			Stone No.			IHD stone			CBD size (mm)		
	<20	>20	p	<4	>4	p	+	-	p	<20	>20	p
Stone clearance	13	10	0.24	15	8	0.13	12	11	0.07	15	8	0.01
Retained stone	1	3		1	3		4	0		0	4	
Open conversion	0	3	0.05	0	3	0.02	3	0	0.10	0	3	0.04
Successful LCBDE	14	10		16	8		13	11		15	9	

Complications	Number	Percent
Significant intra-operative bleeding	0	0%
Wound infection	1	3.7%
Bile leak	1	3.7%
Post-operative jaundice	0	0%
Post-operative fever	1	3.7%
Post-operative ileus	1	3.7%
Chest infecction	0	0%
Post operative diarrhoea	1	3.7%
Total	5	18.4%

Conclusion

- According to above findings, LCBDE provide high stone clearance rate, high success rate, low conversion rate, low residual stone rate with acceptable complications.
- Therefore, if there is feasibility of surgical skill, surgical instrument and device, LCBDE should be considered as a valuable option in the management of common bile duct stones.

- videos





THANKS YOU
FOR YOUR ATTENTION