Safety and Efficacy of ERCP in the management of *Biliary Ascariasis*

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Background

Intestinal ascariasis is one of the commonest and most widespread human infections.

It infects about 25% of the world's population and causes up to a million cases of disease annually.

Ascaris Lumbricoides is the common helminthic infestation in the human G I tract with greater prevalence found in tropical and subtropical countries due to favorable environmental condition for larval growth and poor sanitary & hygienic conditions.

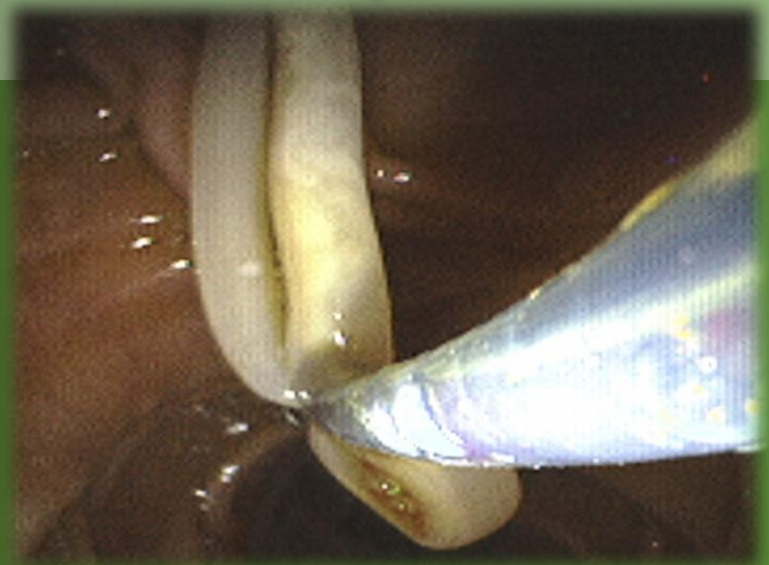
Ascariasis is highly endemic in south Asia including Bangladesh with a prevalence rate of as high as **82**%.

Background

Adult worms migrating to the biliary tree can cause several clinical manifestation along with *Oriental cholangiohepatitis*.

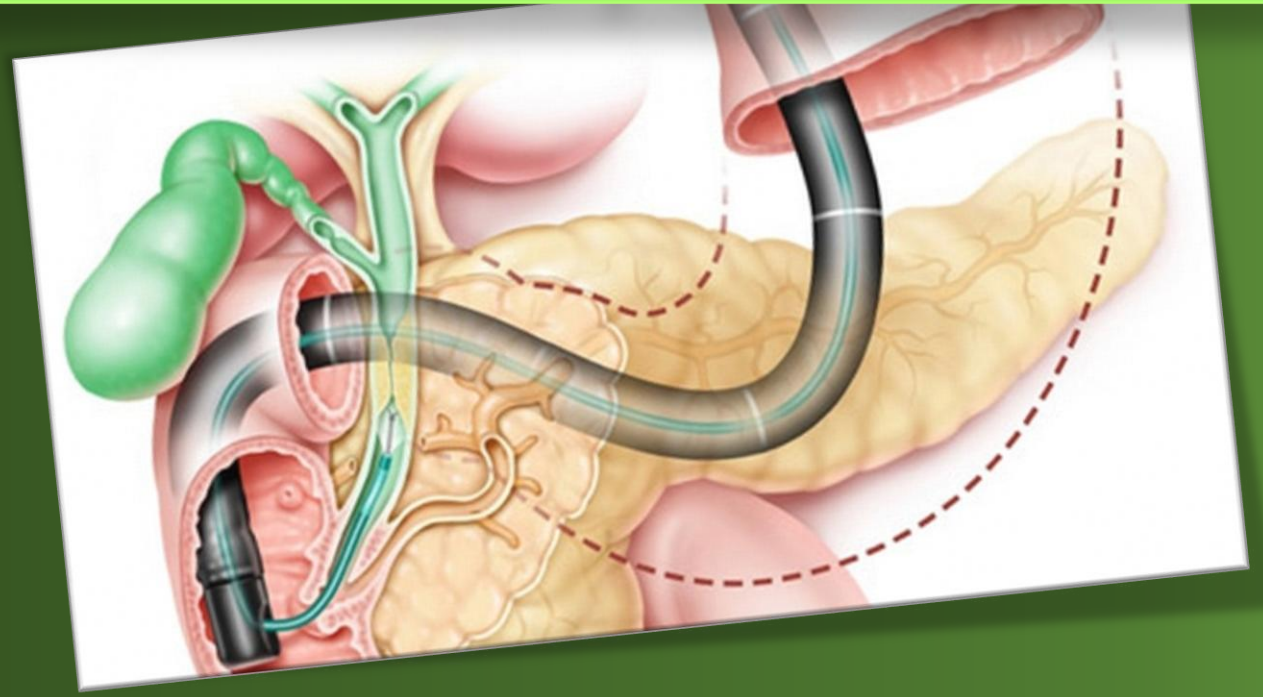
Ultrasound is the initial imaging modality of choice.
ERCP is then used for confirmation and treatment.

However, there is scarcity of reports on the experience of endoscopic management of biliary ascariasis apart from few short case reports.



Objective

To evaluate the safety and efficacy of endoscopic management of biliary ascariasis.



Methods

Study Site: Crescent Gastroliver & General Hospital, Dhaka

Study period: January, 2014 - December, 2016

Inclusion criteria:

- Patient with sonographic evidence of *biliary ascariasis*

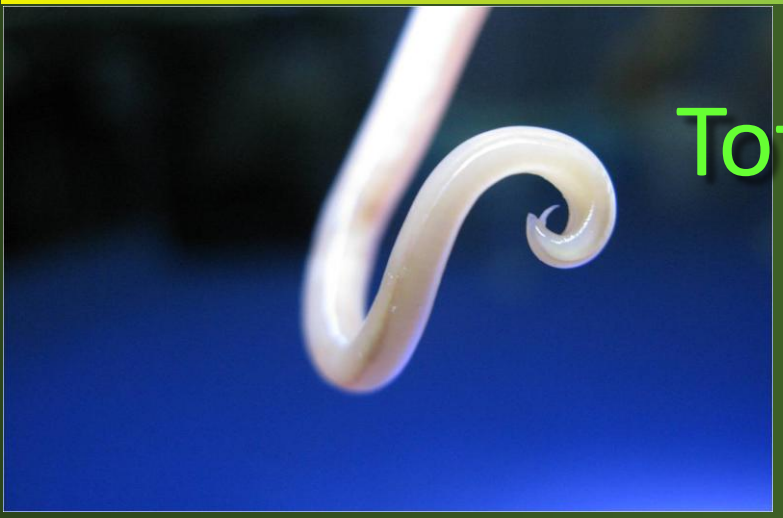
Anesthesia:

- Total intravenous anesthesia by **propofol** (solely)

Endoscope:

- Standard duodenoscopes (TJF-150; Olympus & ED-3470TK; Pentax), with a 4.2 mm accessory channel were used

Results



Total cases identified:

128

Age:

Mean 31 years (range : 19-68 years)

Female:

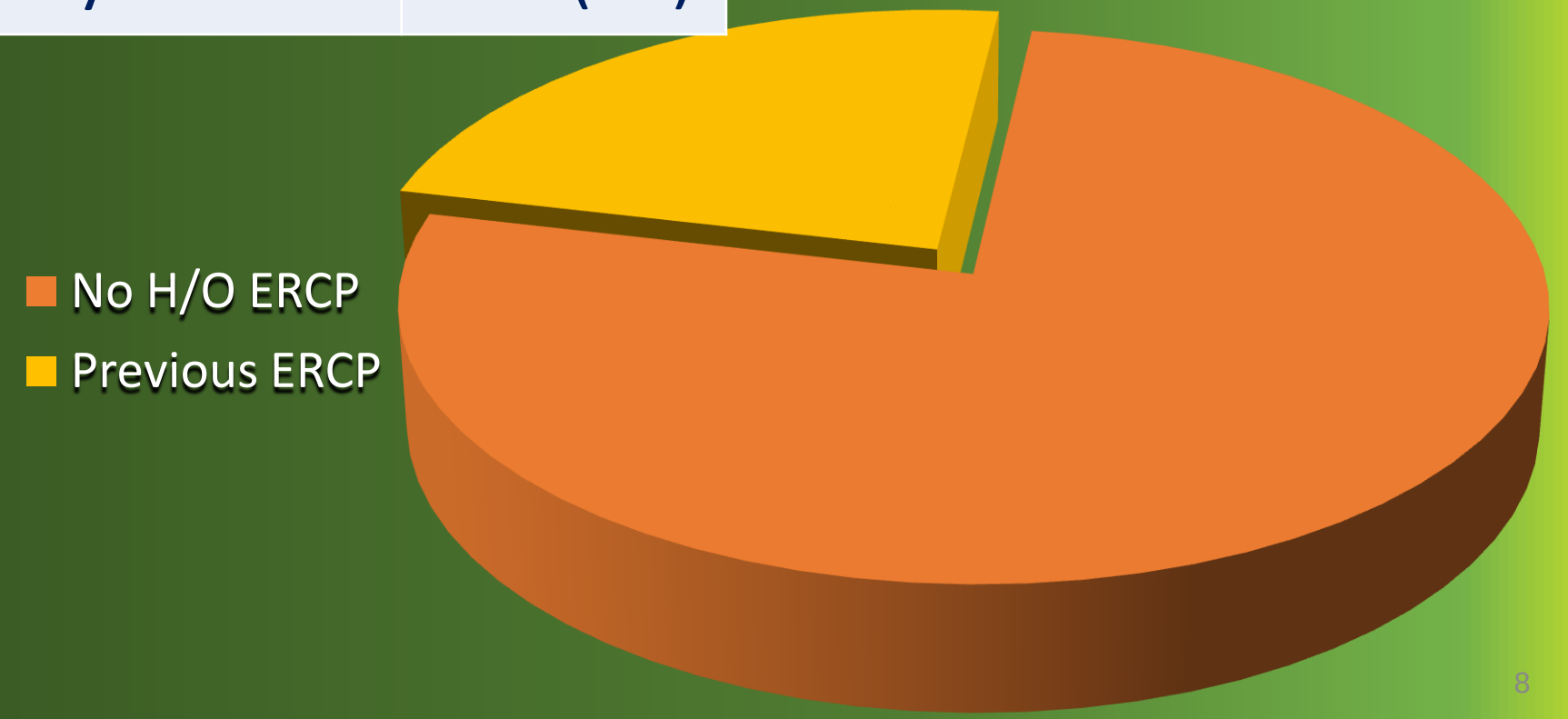
98 (**77**%)

Clinical presentations

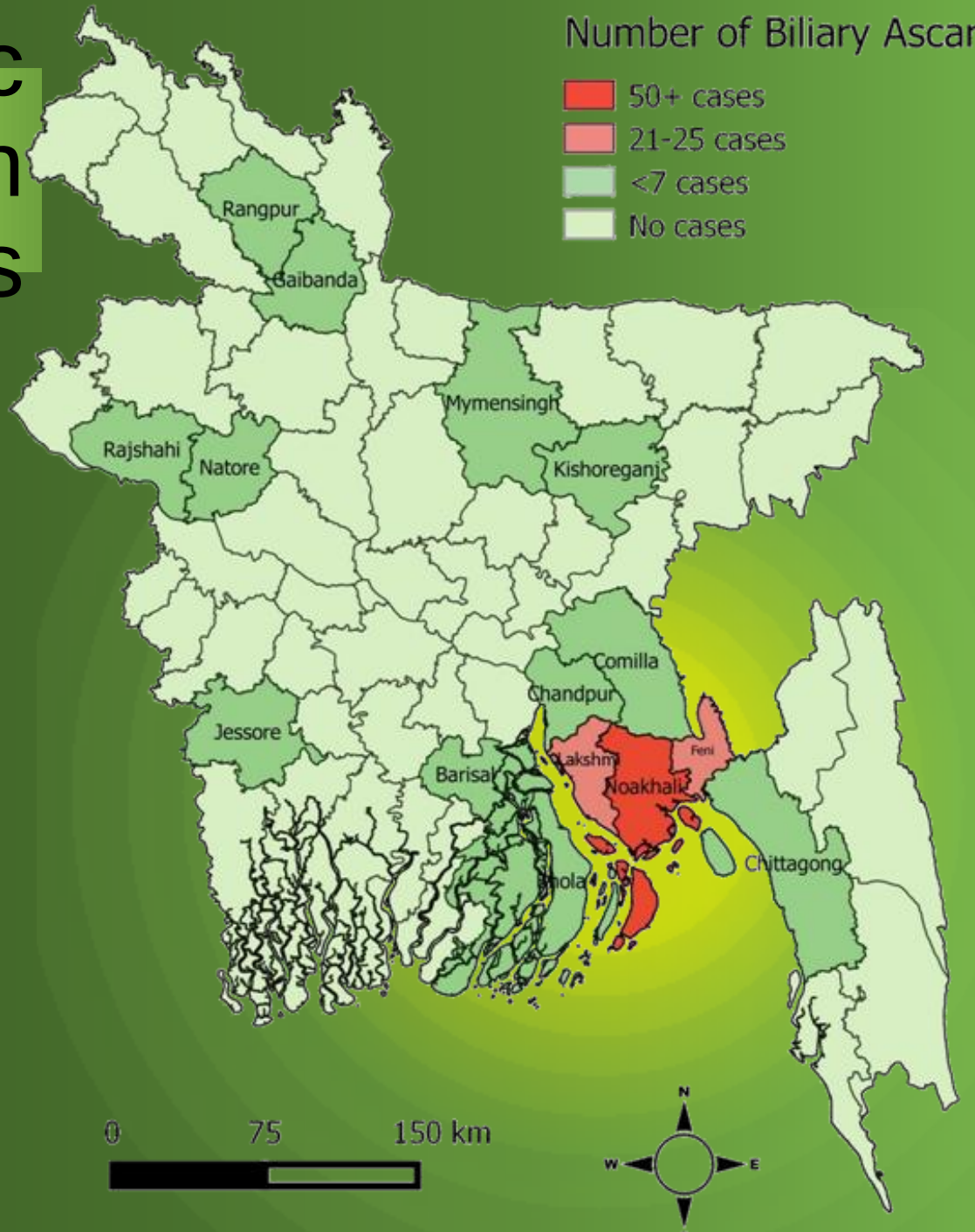
Symptom	n, %
Periodic abdominal pain	128 (100)
Cholangitis	99 (78)
Acute pancreatitis	8 (6)
Choledocholithiasis	5 (4)
Obstructive jaundice	1 (1)
AL *with* Pregnancy	17 (13)

Treatment history (ERCP)

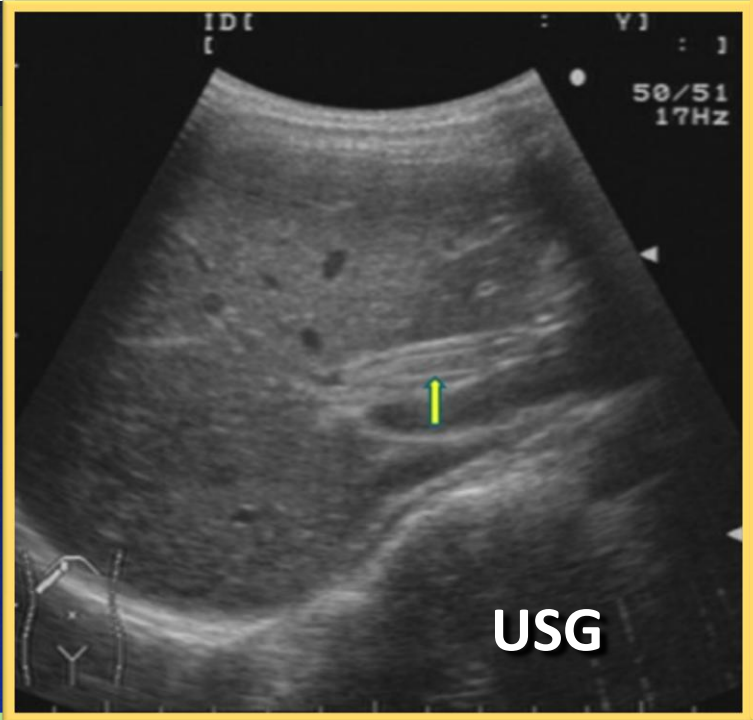
History of ERCP	n, %
Previous ERCP	27 (21)
Without history of ERCP	101 (69)



Geographic distribution of cases



Diagnosis



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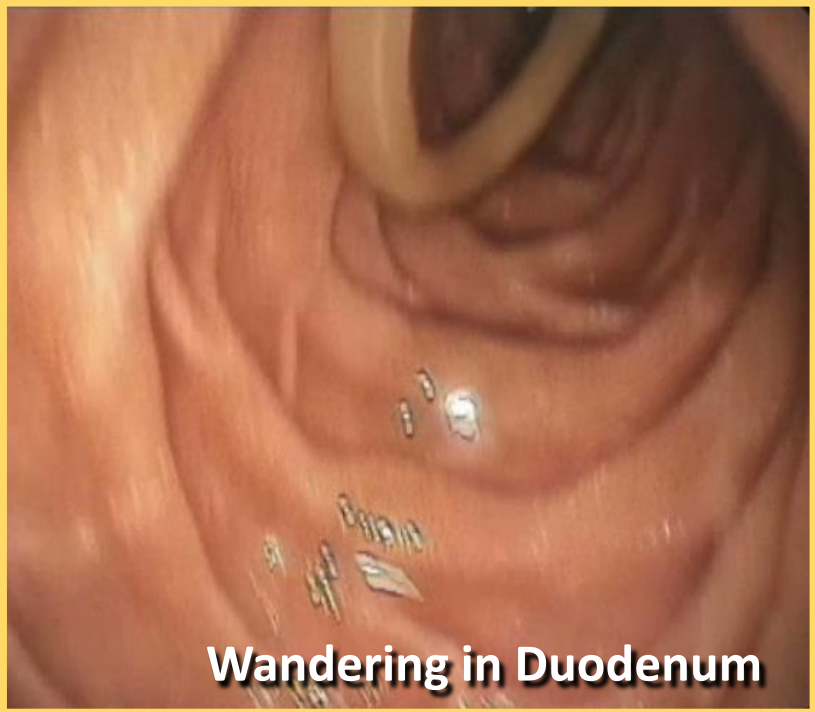
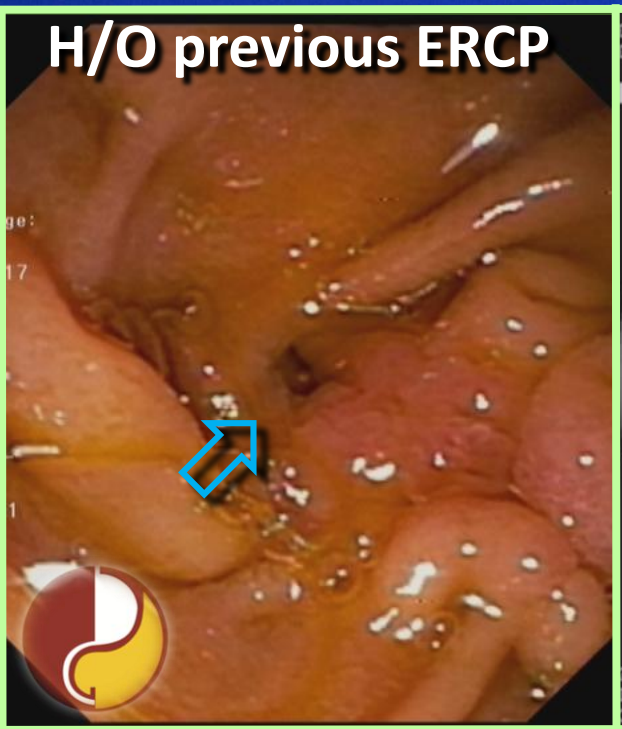
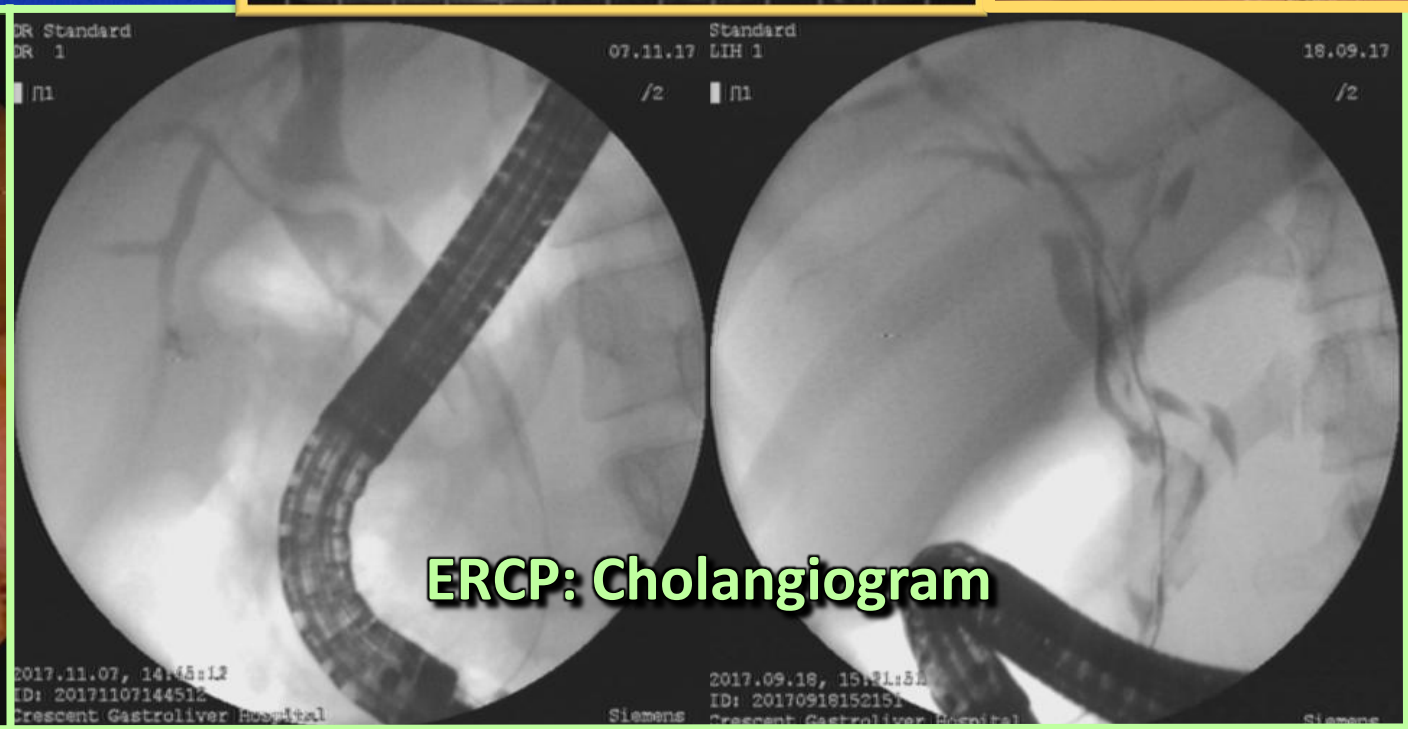
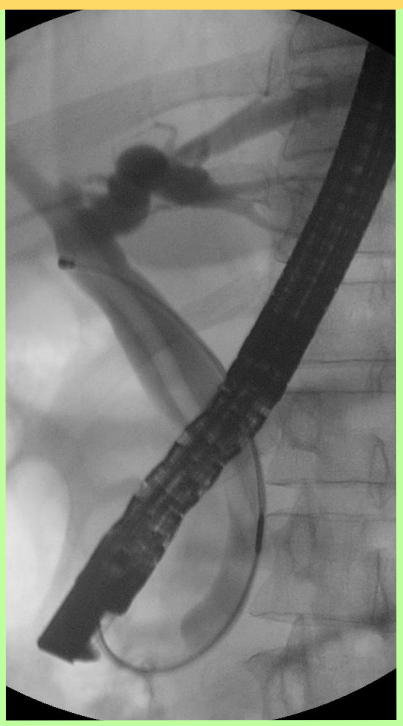

Wandering in Duodenum


H/O previous ERCP



ERCP: Cholangiogram



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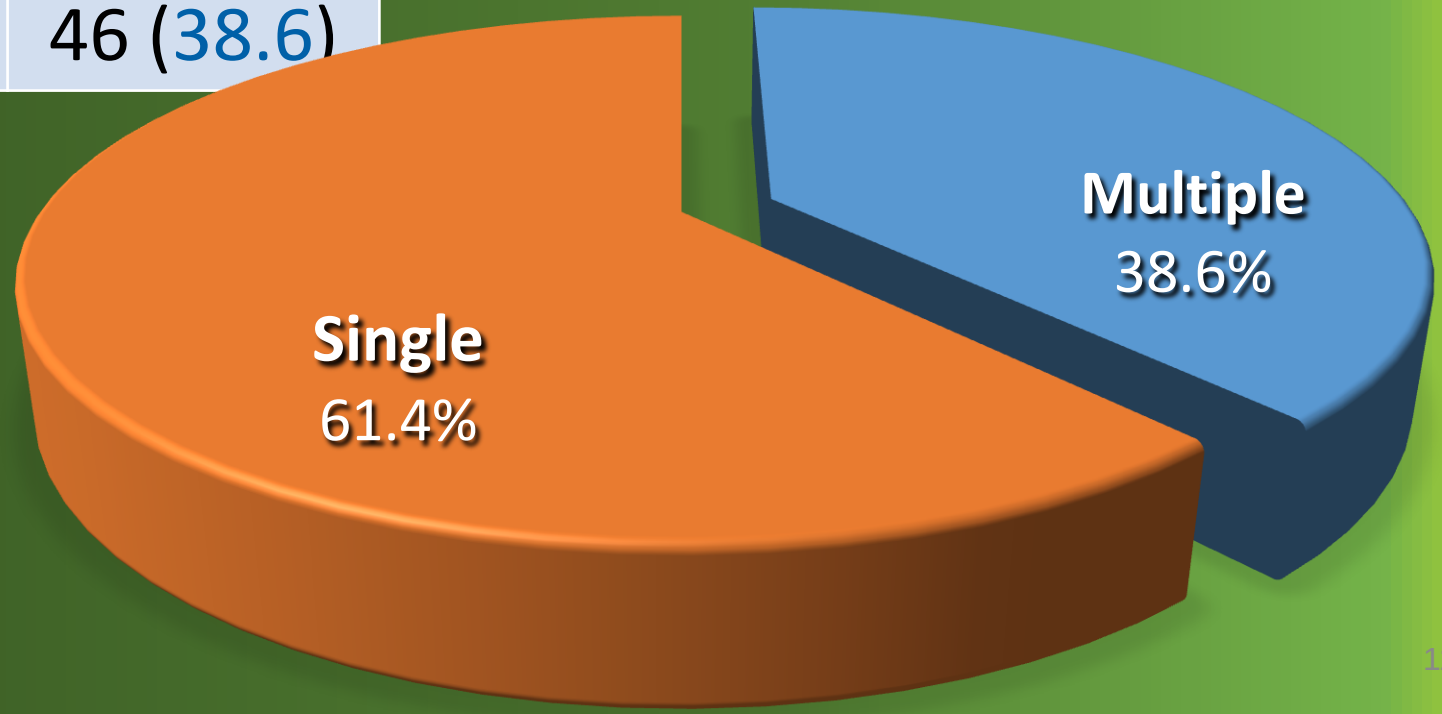
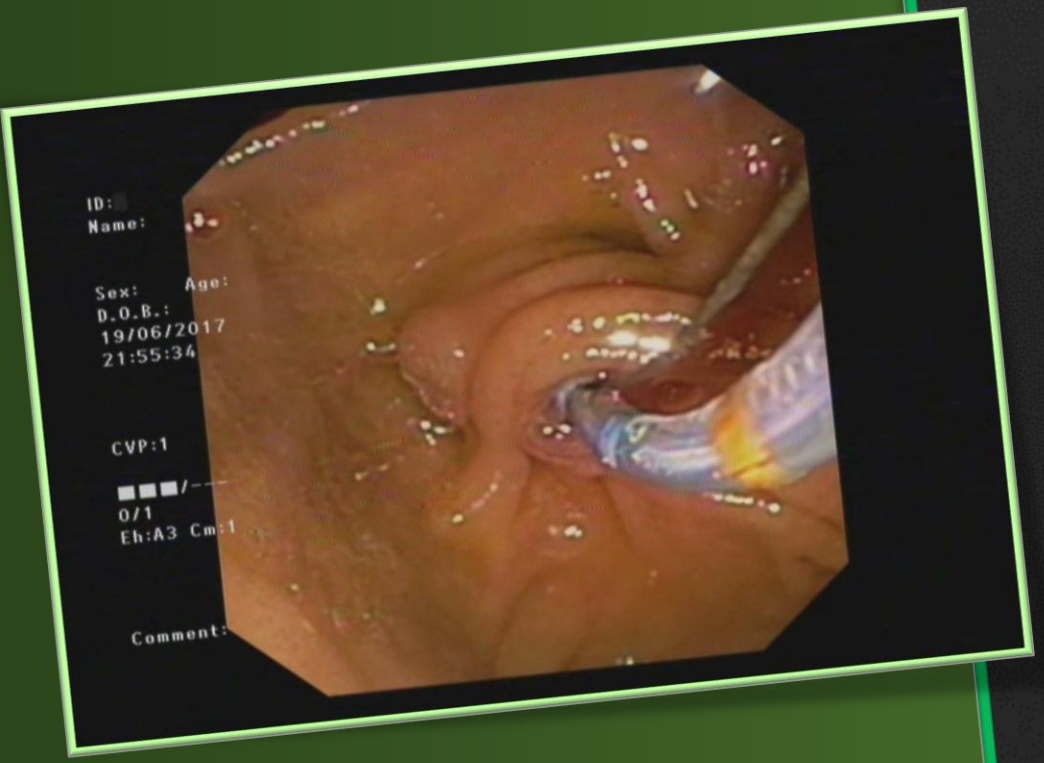
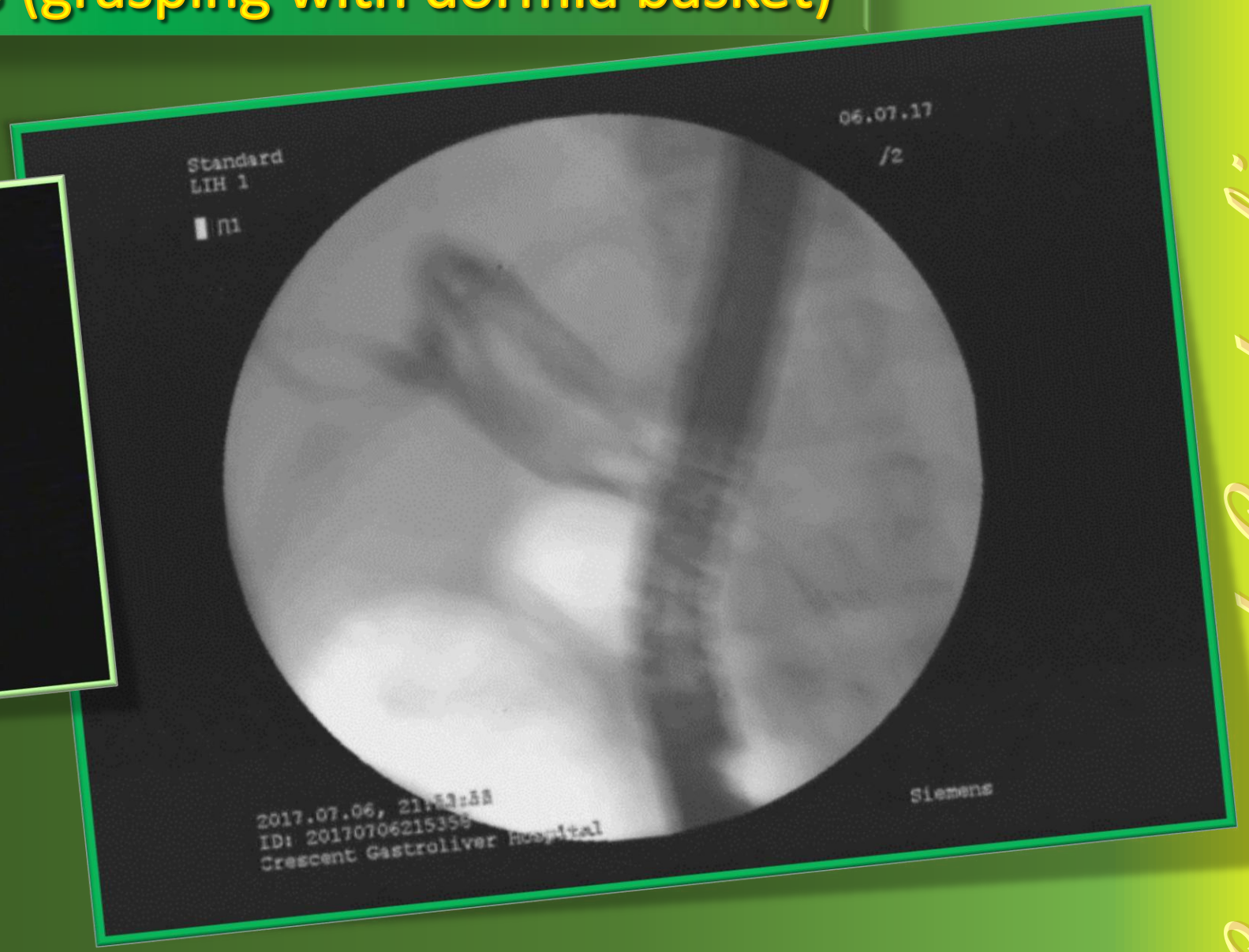
Number of worms extracted

Worm extracted	n, %
Range	1-12
Single	73 (61.4)
Multiple	46 (38.6)



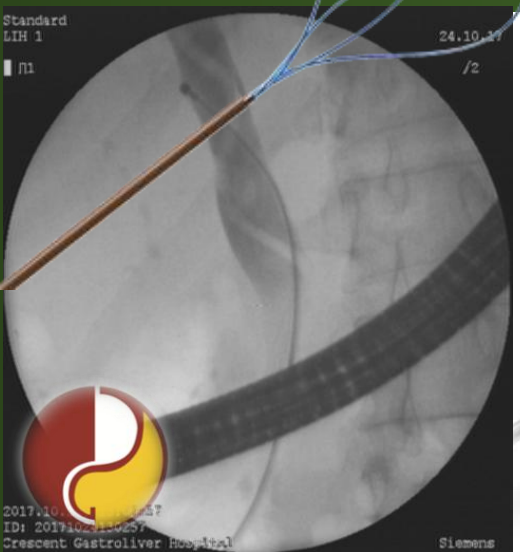
Extracting Worms (grasping with dormia basket)





Instrument used for worm extraction

Instrument used	n, %
Dormia basket	119 (97)
Extractor Balloon	4(3)



Worm extraction: success rate

Successful (AL extracted): 94% (119/128)

Worm spontaneously expelled out before ERCP: 4% (5/128)

Wrongly d ealed Stone: 3% (4/128)

Complications

Complications	Number of cases
Pancreatitis	6
Bleeding	3
Perforation	nil
Death	nil

Conclusion

Though Ultrasonography is a reliable diagnostic modality for biliary ascarisis, ERCP may help with confirmation and aid treatment planning.

Endoscopic worm extraction with dormia basket is an effective and safe procedure.

Worm extraction with ERCP immediately alleviated pain symptoms for nearly all patients.

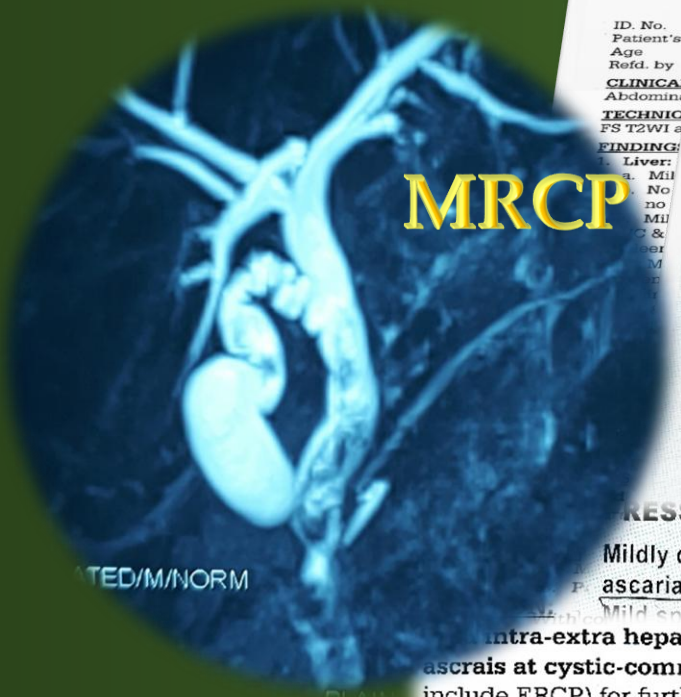
Recommendation

Anti-helminthic should be prescribed for all patients after treatment.

Because recurrence of biliary ascariasis might occur, patient should be advised to take regular anti-helminths.

It should be kept in mind that dead worms may act as nidus for formation of stones in the biliary tree.

Recommendation



BN SINA

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Ultrasonography

UTERUS

Uterus is normal in size. Anteverted
Endometrium is normal in thickness;
Uterine cavity is empty.

ADNEXAE

Both the ovaries are normal in size,
parenchyma. Satisfactory follicular activ
abnormality is observed in any side.

CUL DE SAC

No collection or abnormality is noted in

- No free fluid is noted in the pleu
- No evident abdomino-pelvic lym

IMPRESSIONS

- Mildly dilated biliery tree with in
ascariasis induced cholangitis
- Mild splenomegaly.

RESSIONS

Mildly dilated biliery tree with intra luminal dead worms, features of ascariasis induced cholangitis and cholecystitis with GB sludge.
Mild splenomegaly.

ntra-extra hepatic duct dilatation, possibly due to presence of dead ascrais at cystic-common bile duct. Adv. Other adjuvant examination (may include ERCP) for further evaluation & to exclude the mere possibility of prese of intrahepatic soft calculi, please.

Chief Con
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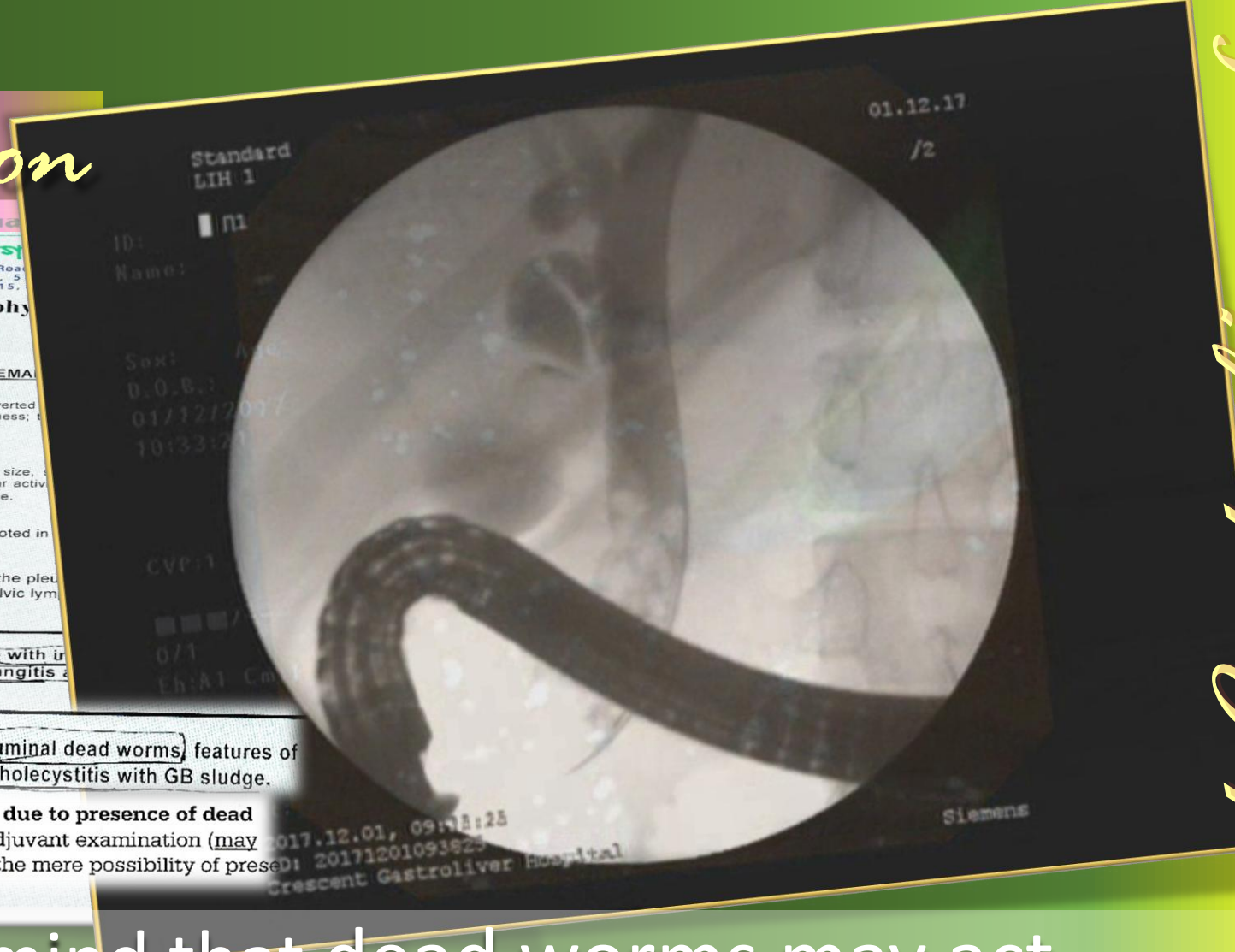

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Fate of *biliary* Ascariasis

Successful ERCP depends not only on technology, but *the* collaboration & interaction of a well coordinated collegial endoscopy team

Crescent

Thank You

Crescent Public