Fasciola hepatica (Liver fluke) induced chronic cholangitis in a Bangladeshi women
- case report-

Division of Hepato-Biliary-Pancreatic Surgery
(Yellow Unit 1)
Department of Surgery
BSMMU





Shukhitun, a 35 year-old lady from Jamalpur

Recurrent right upper abdominal pain, fever, and intermittent jaundice for two years.

She consulted many doctors and hospitalized several times, nobody could reached to a definite diagnosis.

She had severe anemia and tender hepatomegaly

Hematological report

	12/12/2012 (on admission)	17/12/2012 (after 4 u BT)
Hb	4.6 gm/dl	10.5 gm/dl
WBC	7000 cmm/L	6000 cmm/L
N	50%	45%
L	35%	38%
E	12%	15%

Liver function test

	8/12/2012 (on admission)	15/07/2011
T-Bil	7 µmol/L	20 µmol/L
SGPT	34 U/L	41U/L
ALK-P	54 U/L	945 U/L
Alb	31 gm /L	35gm/L
PT	12 sec	13 sec

CT Scan (19/07/2011) (Shaheed Ziaur Rahman Medical College)
Mild hepato-splenomegaly with multiple SOL in liver

CT Scan (27/07/2011) (Kwaja Yunus Ali Medical College)
Hepatomegaly with suspected liver mets.

FNAC of liver SOL: Inflammatory lesion

CT Scan (04/10/2012) (popular diagnostic center)
Soft tissue mass at porta hepatis invading CBD resulting mild biliary obstruction

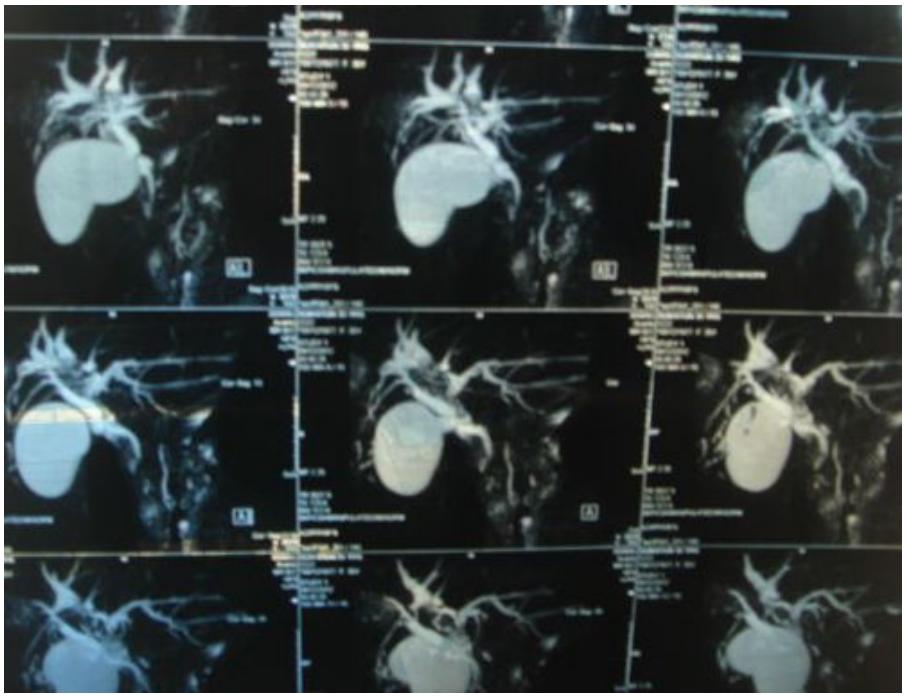
Tumor markers

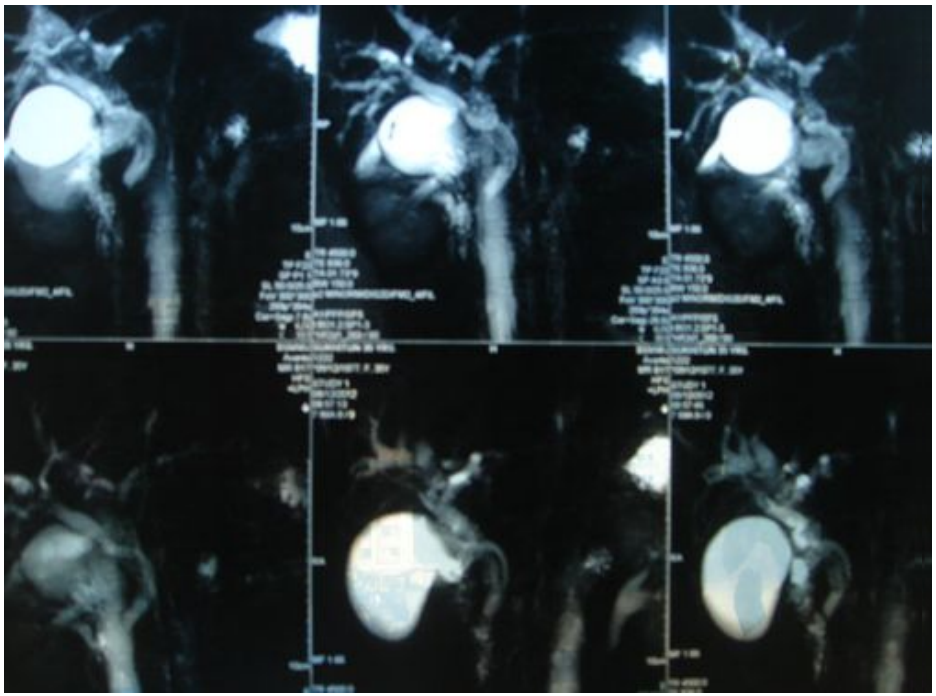
Variable	Patients value	Normal value
CEA	0.31 ng/ml	5 U/L
CA19-9	11.6 u/l	- 35 u/l
AFP	1.53 ng/ml	<15 ng/ml
CA-125	17.2 U/L	<21 U/L

She and her family member became panic with the different diagnosis.

Finally she came to BSMMU

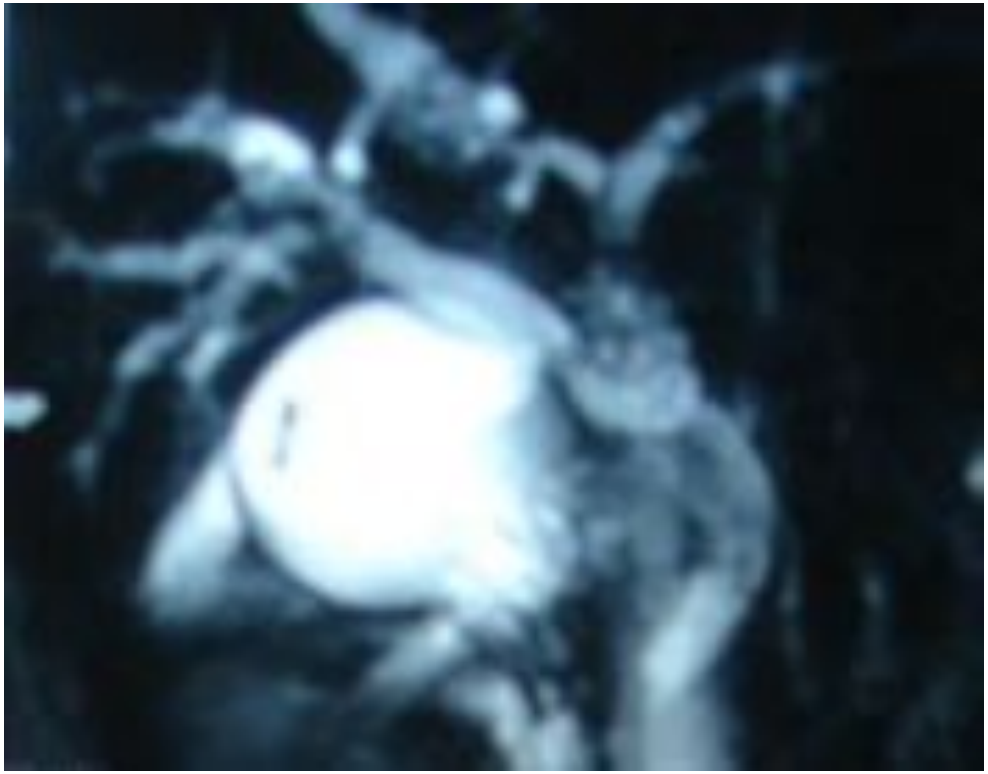
MRCP 09/12/2012(BSMMU)



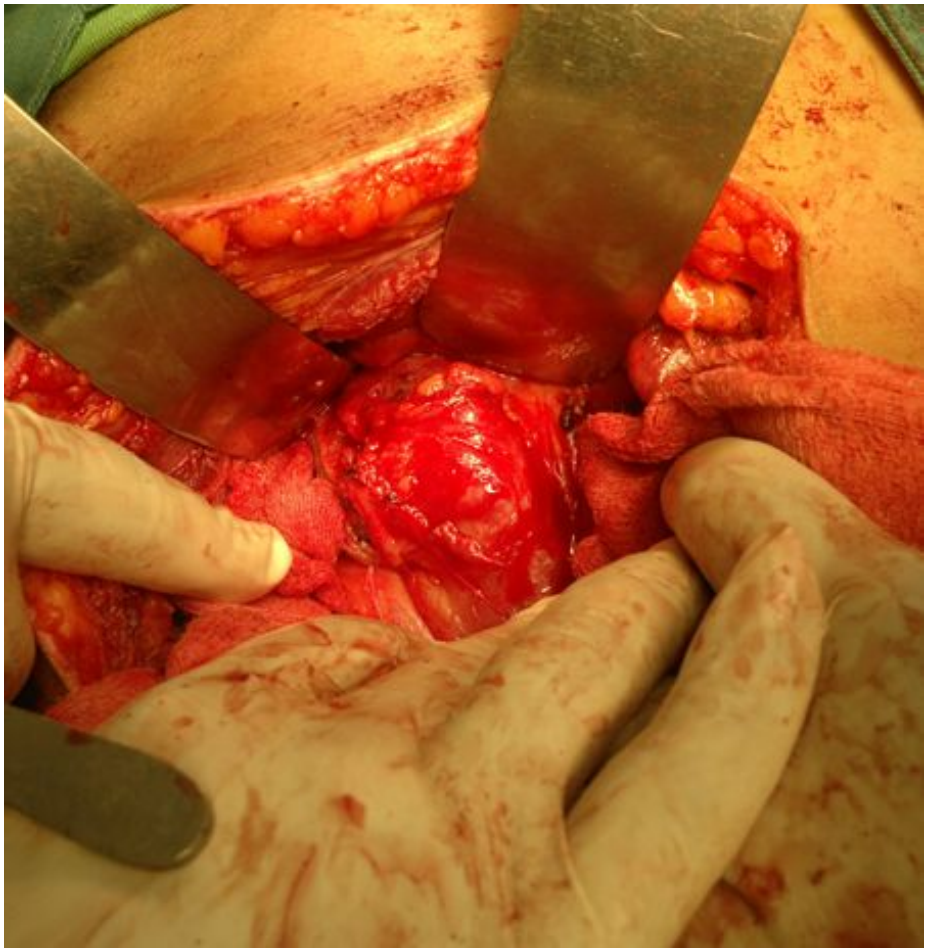


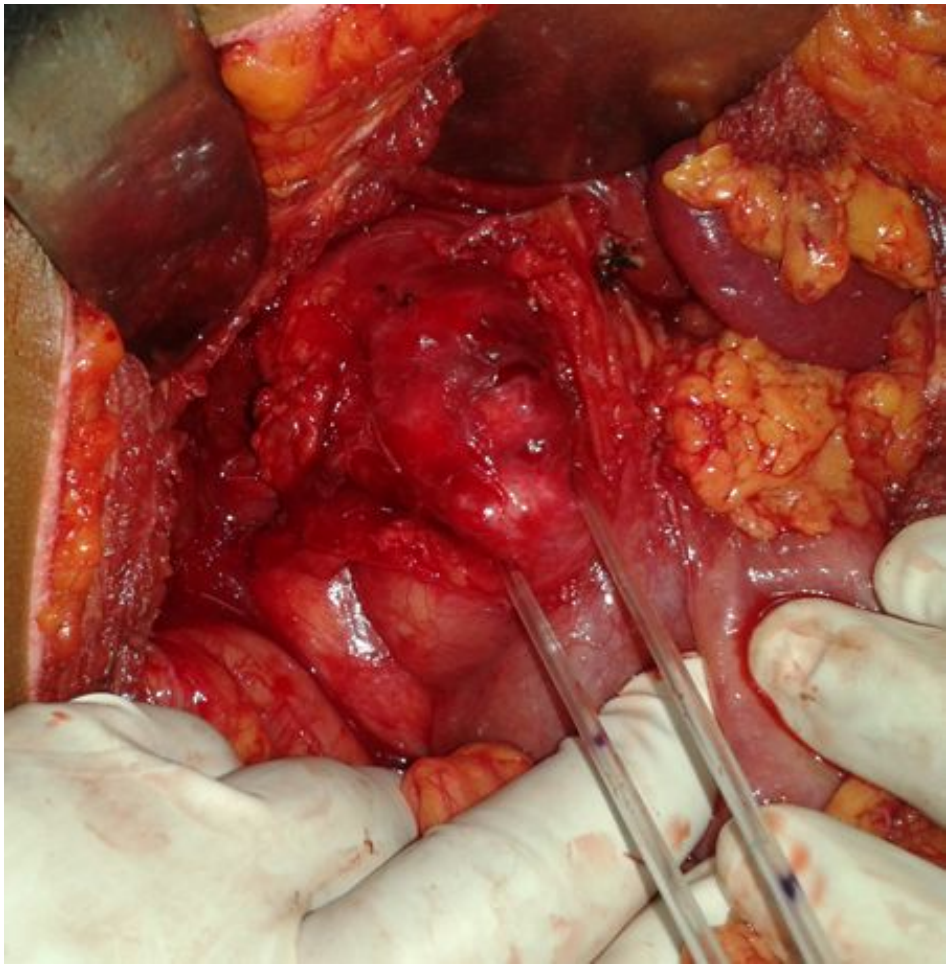
Mass with in CBD resulting dilatation of IHD
Diagnosed as a case of cholangiocarcinoma





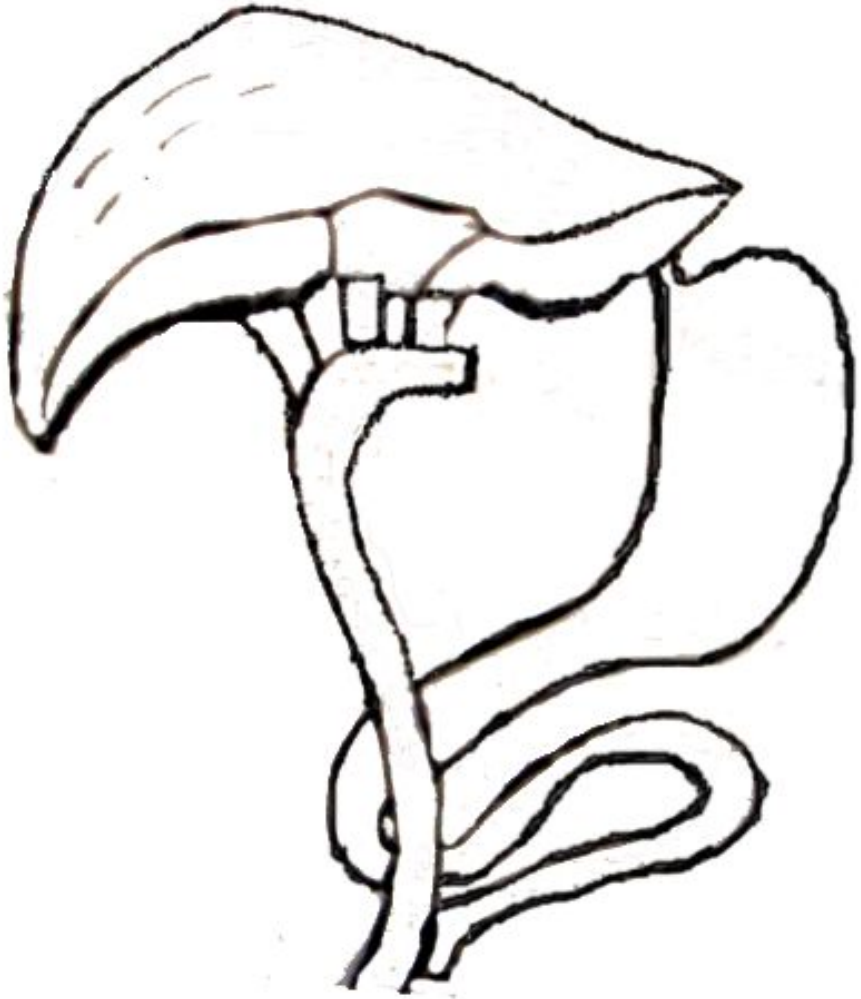
Operative findings

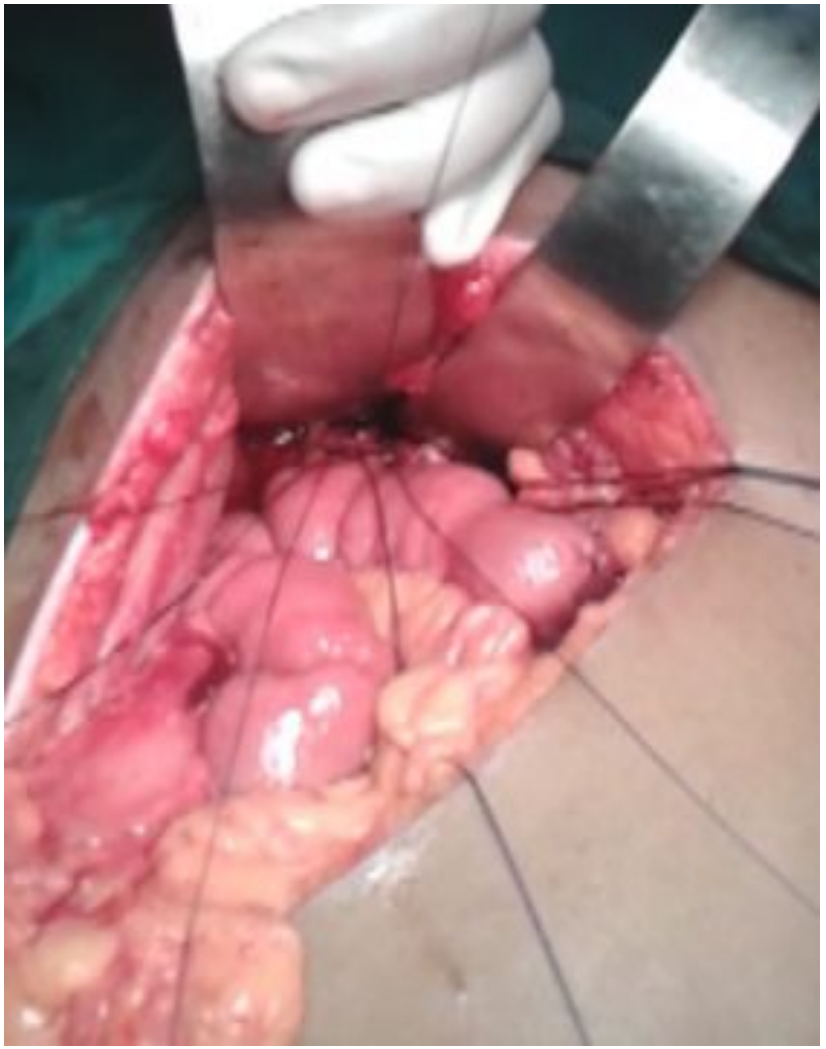






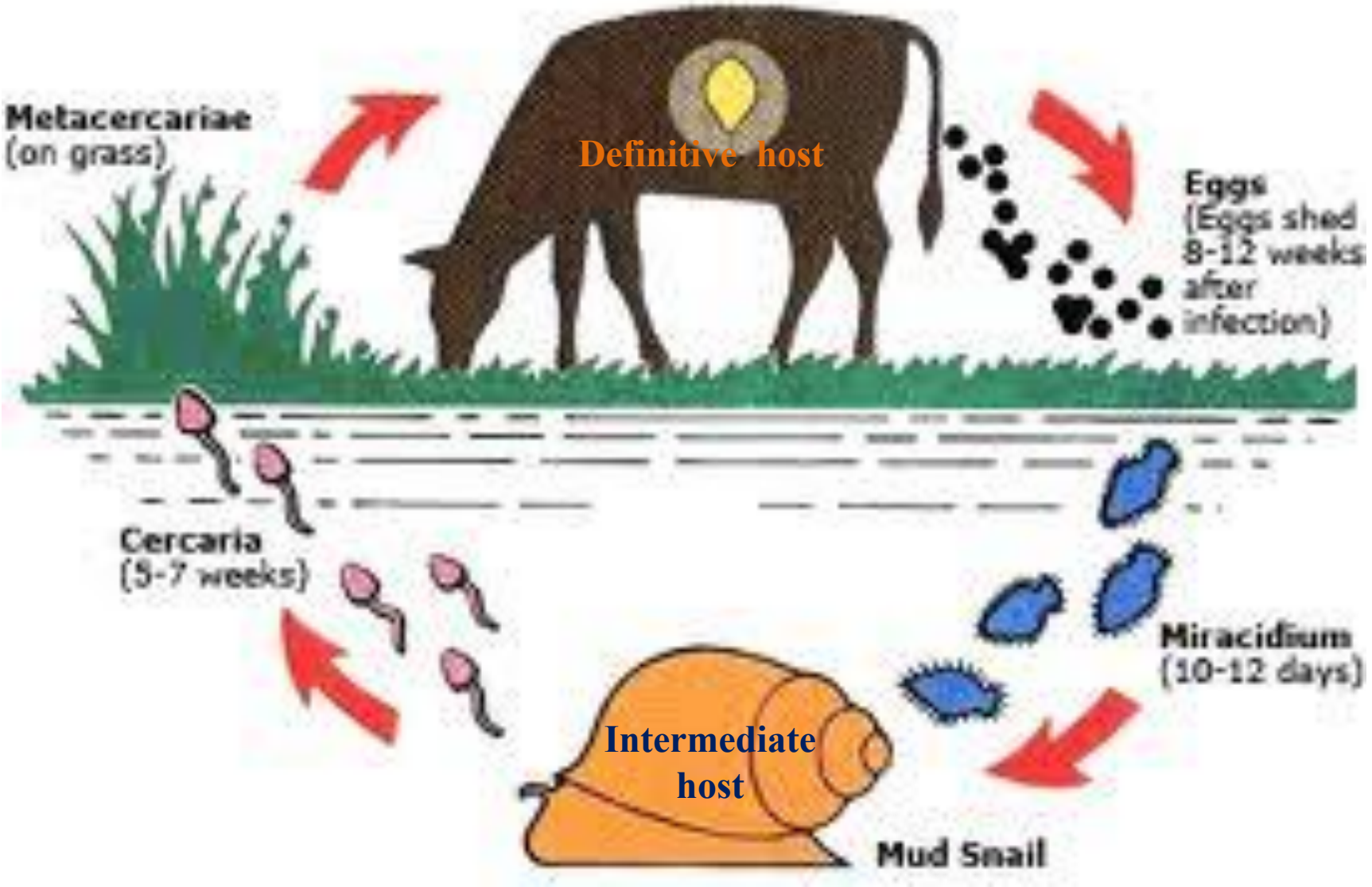






Videos

Life cycle of fasciola hepatica



Common and hepatic bile ducts (egg) ➡ miracidia penetrate suitable snail hosts ➡ free-living cercaria ➡ attach to suitable plants ➡ evolve into metacercarial cysts ➡ human (excyst in the duodenum) ➡ the larvae migrate through the small intestinal wall ➡ through the peritoneal cavity ➡ liver capsule ➡ slowly migrate to The large hepatic ducts.





Human liver flukes Infections typically occur from eating infected raw or undercooked fresh water fish or watercress.

After ingestion, liver flukes travel from the intestine to the bile ducts of the liver where they mature and live.

Liver fluke infection can be asymptomatic or may cause symptoms related to the biliary system (the liver bile ducts and gallbladder).

Discussion

This is a major health concern for millions of people, those living in the Far East, Eastern Europe, and Southeast Asia, North America.

Is there any data of Liver Flukes infestation in human available in Bangladesh?

INCIDENCE OF LIVER FLUKES AND GASTRO-INTESTINAL PARASITES IN CATTLE

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Bangl. J. Vet. Med. (2006). 4 (1): 39–42

	Fasciola	Paramphistomum	AL	Strongylid	Strongyloides	TT	Schistosoma	Moneizia
N=360	**90 (25%)**	163 (45.2%)	62 (17.2)	88 (24.4)	32 (8.9)	22 (6.1)	106 (29.4)	30 (8.3)

Bangl. J. Vet. Med. (2010). 8(1): 35 – 40

PATHOLOGICAL INVESTIGATION OF LIVER FLUKE INFECTION OF SLAUGHTERED BLACK BENGAL GOAT IN A SELECTED AREA OF BANGLADESH

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Clinical presentation

abdominal pain, intermittent fever, malaise, weight loss, urticaria, and cough, dyspnea, and chest pain. A change in bowel habits, anorexia, and nausea may occur.

Anemia, fluctuating jaundice, tender hepatomegaly, right sided pleural effusions are usual clinical findings.

Biliary colic, acute cholecystitis features of obstructive jaundice, or cholangiocellular carcinoma

Diagnosis of acute infection

a) H/o of raw freshwater fish consumption (salted, fermented, or smoked fish, fish sauces, fish condiments, salad),
b) upper abdominal pain
c) high-grade eosinophilia
d) liver enzyme elevation
e) the appearance of compatible eggs in the stool.



infections of less than 20 adult flukes, no eggs may be found

The ELISA has been used for serodiagnosis, achieving sensitivities of 95% to 100%

USG
combination of cystic or mulberry-like dilations of intrahepatic bile ducts is pathognomonic

With M-mode ultrasound, numerous spotty echoes and thin linear and moving intraductal echoes may be seen.

CT scans (ultrasound is less sensitive)
have visible hypodense lesions and tracts in the liver and over time these lesions change in position and contour

Definitive Diagnosis

Presence of adult flukes in the stool immediately after a praziquantel treatment and purge

Detection of adult flukes at the time of surgery.

Drugs for Liver Flukes

Praziquantel
Triclabendazole,
Bithionol
Nitazoxanide
Albendazole

Praziquantel : (Oral Route)

US Brand Names : Biltricide (600mg) / distocide (600mg)

M/A: Praziquantel works by causing **severe spasms and paralysis** of the worms' muscles. Some kinds of worms are then passed in the stool. However, you may not notice them since they are sometimes completely destroyed in the intestine

Dose: Adults, teenagers, and children 4 years of age and older—Dose is based on body weight and must be determined by your doctor. The dose is **20-25 milligrams (mg) per kilogram (kg)** of body weight taken 3-4 times a day for 2-3 days.

Sides effects:
More common: Drowsiness, Increased sweating, General feeling of discomfort or illness, Nausea or vomiting

Less common: Skin rash, hives, or itching

Albendazole

400mg tablet or 3.5ml suspension twice daily for 14 days.

Prevention

a) Proper food preparation usually destroys liver fluke eggs.
b) Cook fish to 60 degrees centigrade
c) Eat sushi at a reputable, certified restaurant
d) Purchase fresh greens from a rigorously inspected grocery outlet.
e) Vaccines have been developed and used to protect against