RESULTS AND STATISTICS

RESULTS AND STATISTICS

The study involved thirty patients coming with clinically evident obstructive jaundice for diagnosis and treatment. They were admitted to tropical department of Theodar Bilharz Research Institute where ERCP was done for all of them, Over the last three years. The patients were divided into two hypothetical groups according to collective cumulative features gathered from clinical picture ultrasonography, abdominal CT scan and ERCP features.

The 2 groups are : Those with malignant obstructive jaundice and those with benign obstructive jaundice.

Malignant group

They are 12 males (80%) and 3 females (20%).

Their mean age 57.8 ± 11.2 years.

They are shown in following table

Diagnosis	Number of patients
Infiltrating pancreatic mass	3
Cholangio carcinoma	6
Periampullary carcinoma	5
Compression by hepatic mass	1

Table (1)

Benign group:

They are nine males (60%) and six females (40%).

Their mean age 48.7+ 16.3 years.

Table 2 showing comparison between the two groups as regards age and sex.

	Benign group	Malignant group	P value
Mean age	48.7± 16.3	57.8± 11.2	N.S.
Female	6	3	N.S.
Male	9	12	N.S.

Table (2)

There is no significant differece in age or sex between two studied group (N.S. = non significance)

Table (3)

Clinical data in both groups

	Benign group (15 patients)		Malignant group (15 patients)		P- value
	Number	%	Number	%	
Abdominal pain	12	80	11	73.3	N.S.
Jaundice	8	53.3	15	100	< 0.05
Itching	2	13.3	13	86.7	< 0.001
Clay stool	8	53.3	15	100	< 0. 05
Deep urine colour	8	53.3	15	100	< 0.05
Fever	3	20	7	46.7	N.S.
Nausea	2	13.3	9	60	< 0.05
Vomiting	1	6.7	7	46.7	< 0.05
Weight loss	0	0	12	80	< 0.001

The clinical parameters studied in the two groups showed the following:

There is non-significant difference in abdominal pain and fever between the two groups.

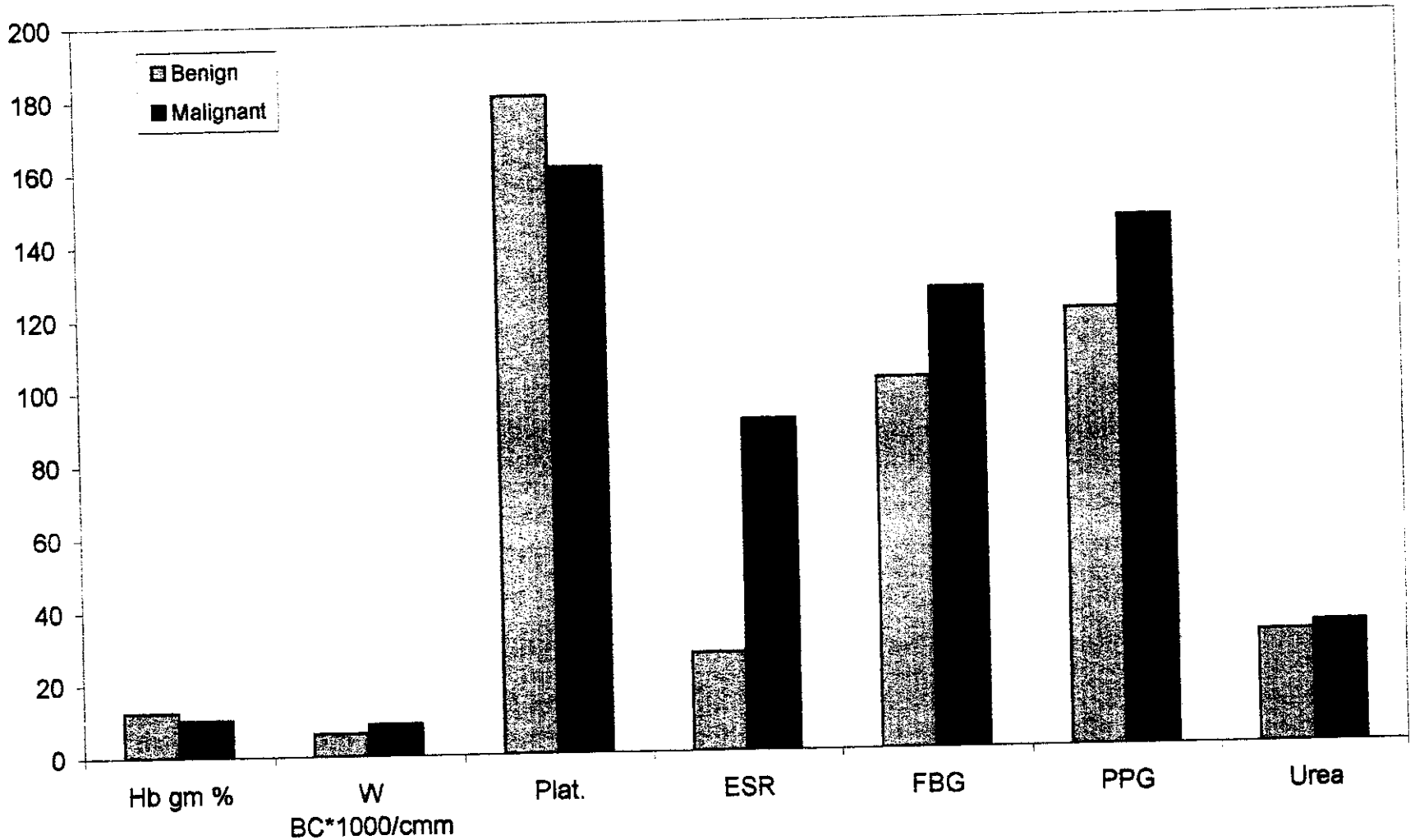
There is significant difference in jaundice; clay coloured stool, deep colored urine, nausea and vomiting.

There is high significant difference in itching and weight loss.

Table (4)

Laboratory (routine) works in the two studied groups

Parameter	Benign group (15 patients)		Malignant group (15 patients)		P value
	Mean	S.D	Mean	S.D	
Hb gm%	12.3	1.4	10.2	1.3	< 0.001
WBC /cmm	6286.6	1745.5	8726.6	4425.3	N.S.
Plat.	180.2	49.7	160.7	55.9	N.S.
ESR	26.9	10.4	90.8	18.9	< 0.001
FBG	101.7	53.8	126.1	64.1	N.S.
PPG	119.8	58.9	145	64.7	N.S.
Urea	30.6	4.5	33.0	13.6	N.S.
Creatinin	0.9	0.2	1.2	0.3	N.S.



Comparison of routine laboratory works between Benign and Malignant groups

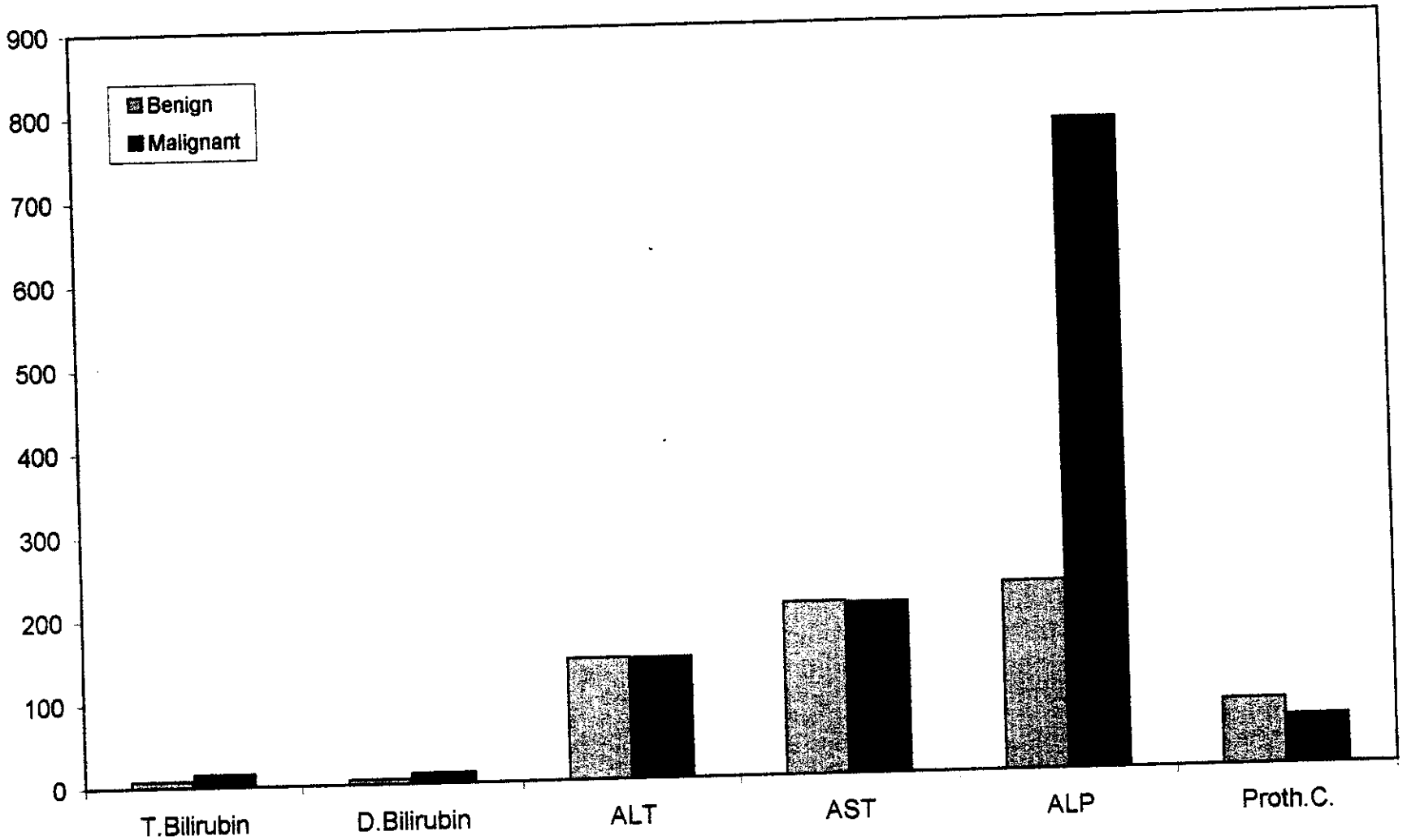
Table (5)

Comparison of specific liver function tests (LFT) between the two studied groups

	Benign group		Malignant group		P-value
	Mean	S.D	Mean	S.D	
T.Bilirubin	7.5	4.1	15.1	6.6	< 0.001
D.Bilirubin	5.4	3.1	12.4	5.9	< 0.001
ALT	145.4	124.6	144.6	123.7	N.S.
AST	206.9	218.5	204.8	216.5	N.S.
ALP	225.8	115.1	779.1	513.2	< 0.05
Albumin	3.6	0.6	3.1	0.6	N.S.
Proth.C.	79.3	16.6	58.6	12.4	< 0.05

The laboratory results showed the following:

- Hemoglobin is significantly lower in malignant group.
- Erythrocyte sedimentation rate is highly significant higher in malignant group.
- Both total and direct bilirubin is highly significant higher in malignant group.
- Alkaline phosphate is significantly higher in malignant group.
- Prothrombin time is significantly prolonged in malignant group.
- There is non-significant difference in WBC, Platelets, Blood sugar, ALT, AST, Albumin and Creatinine.



Comparison of liver function tests between Benign and Malignant groups

Table (6)

Brush cytology results in the studied groups

Positive brush cytology	Benign group	Malignant group	P val
Number of patients	0	7	< 0.0

Brush cytology studied in all patients was negative for malignant cells in all benign groups (No false positive results) and it was positive in seven out of 15 patients in malignant group.

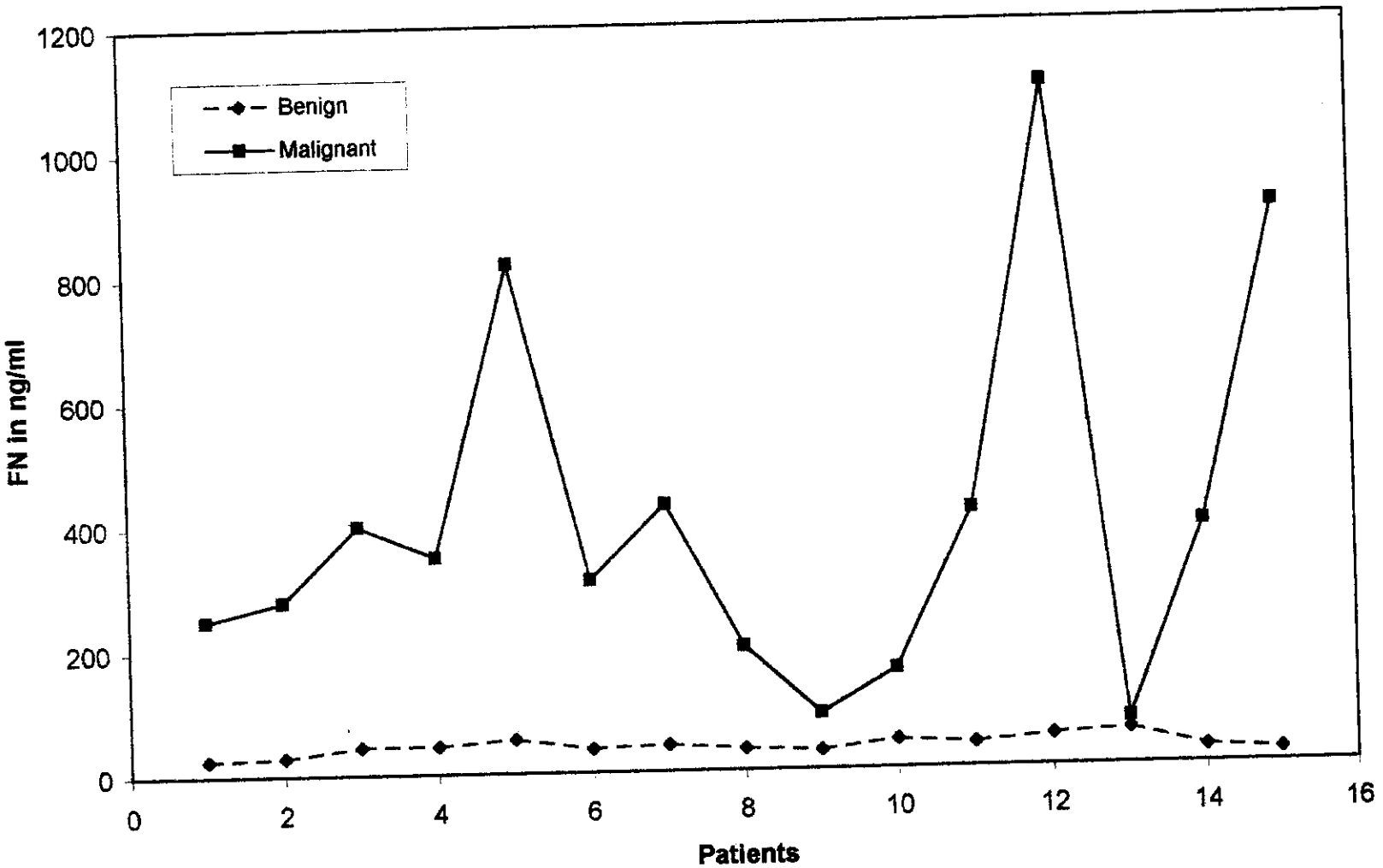
So, brush cytology was found to be statistically significantly positive in malignant obstructive jaundice (P value < 0.05).

Table (7)

Fibronectine level (Value) in ng/ml in bile of patients of both groups.

	Benign group		Malignant group		P value
Fibronectin value (in ng/ml)	Mean	S.D	Mean	S.D	< 0.001
	38.8	11.0	411.3	300.3	

It was found that bile fibronectin value in malignant group statistically highly significant higher than bile fibronectin value of patients with benign obstructive jaundice.



Comparison of FN bile level between Benign and Malignant groups

Table (8)

The ultrasonagrphic features of the studied groups.

Parameter	Number of patients in benign group	Number of patients in malignant group
Hepatomegly	2	1
Splenomegly	1	0
Cirrhosis	3	0
Dilated CBD	9	10
Gall stones	3	0
Pancreatic mass	0	4
Dilated radicals	4	13

Table (9)

The ERCP findings in the studied groups.

Parameter	Number of patients of benign group	Number of patients of malignant group
Single CBD stricture	15	12
Multiple CBD strictures	0	1
Proximal dilatation of biliary tree	9	11
G.B filling defects	5	1
Periampulaary mass	1	5
Filling defect in CBD	3	0
Stricture lower end CBD	14	9
Stricture mid CBD	0	1
Stricture upper 1/3 CBD	1	4
G.B not opacified	10	3
Pancreatic duct stricture	0	0
Pancreatic duct dilatation	0	0

Table 9 showed that

The benign group of patients had the following data:

- 5 of them had gall bladder stones and ten of them had history of cholecystectomy.
- All of them had single stricture of CBD.
- In 14 of them, the stricture was at the lower end of CBD although only one patient had stricture of the upper 1/3 of CBD.
- One patient had periampullary mass, which was candidate to tissue biopsy, and it was proved to be villous adenoma.
- Three patients had filling defects in CBD (stones) which were removed using Dormia basket.

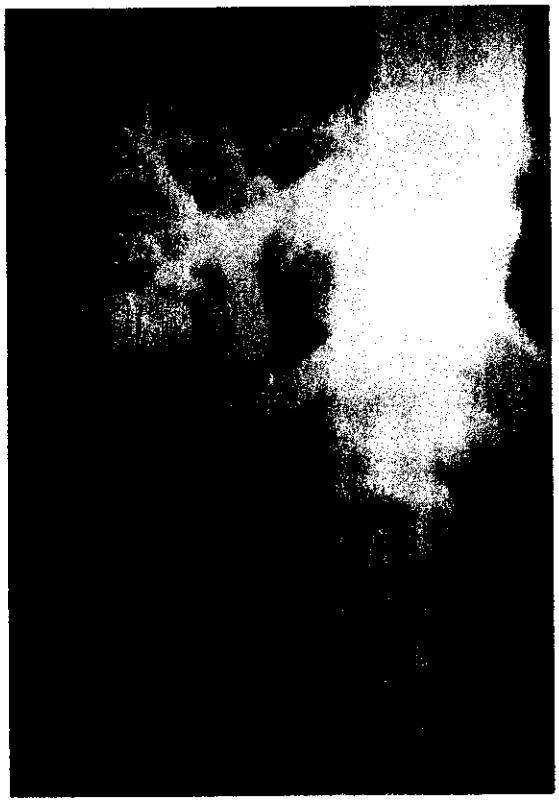
The malignant group of patients had the following data:

- 13 patients had stricture CBD.
- 8 of them had stricture involving lower 1/3 CBD.
- 3 of them had stricture involving upper 1/3 CBD.
- 1 patient had stricture involving mid 1/3 CBD.
- 1 patient had strictures lower and upper 1/3.
- 5 patients had periampullary mass proved by histopathology to be adenmcarcinoma.

THE FOLLOWINGS

ARE MODELS OF

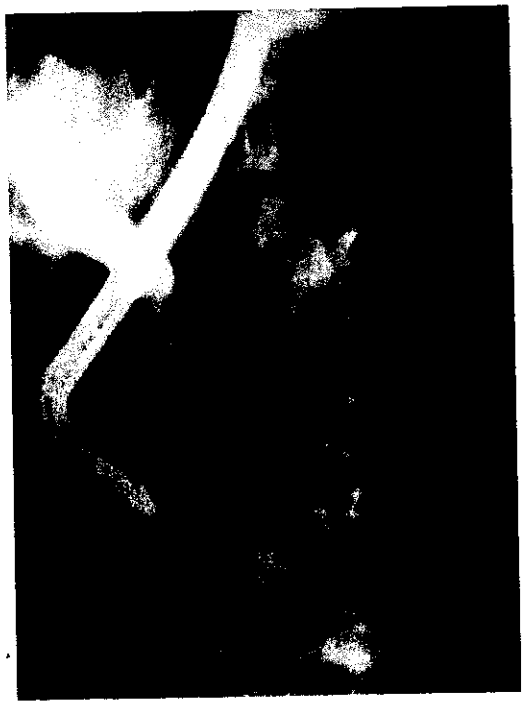
CHOLANGIOGRAPHY IN OUR STUDY



The cholangiographic appearance of benign stricture

The cholangiographic appearance of post-operative biliary stricture

The cholangiographic appearance of cholangiocarcinoma



The cholangiographic appearance of cancer pancreas