

大韓消化器內視鏡學會誌：第 19 卷 第 4 號

= Abstract =

Combined Endoscopic Transpapillary Biopsy and Exfoliative Cytology for the Diagnosis of Bile Duct Cancer

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Background/Aims: In the management of patients with extrahepatic bile duct carcinoma, histologic diagnosis is crucial to determine therapeutic modalities, to predict their outcomes, and to avoid an unnecessary operation. Though various methods were developed, none of them yielded satisfactory results. A combination of those methods was reported to yield superior sensitivity and specificity to a single method. To evaluate the diagnostic efficacy, endoscopic transpapillary biopsy (ETPB) and exfoliative bile aspiration cytology (BAC) was performed in 40 patients with extrahepatic bile duct carcinoma. **Methods:** After visualization of the biliary tree and the lesion by endoscopic retrograde cholangiopancreatography (ERCP), ETPB (n=40) and BAC (n=28) was done in one session with or without endoscopic sphincterotomy (EST) and the results of two methods were analyzed. **Results:** The final diagnoses were made by surgical pathology and by clinical follow-ups of more than a year. The locations of the 40 bile duct carcinomas were in the upper area in 25, the middle in 14 and the lower in 1. ETPB was performed in all patients and BAC in 28 patients. The overall sensitivity of the ETPB was 65.0% (26/40). According to the morphology and location, the sensitivity of ETPB was 65.6% (11/32) for sclerotic, 60.0% (3/5) for papillary, and 66.7% (2/3) for the protruding type, and 68.0% (17/25) for the upper bile duct lesion, 64.3% (9/14) for the middle, and 0% (0/1) for the

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lower. The overall sensitivity of the BAC was 71.4% (20/28). According to the morphology and location, the sensitivity of BAC was 80.0% (16/20) for sclerotic, 20% (1/5) for papillary, and 100% (3/3) for the protruding type, and 82.4% (14/17) for the upper bile duct lesion and 54.5% (6/11) for the middle bile duct lesion. When the two tests were combined, the sensitivity rose to 96.4% (27/28). **Conclusions:** A combination of ETPB and BAC is useful in making a histologic diagnosis in patients with bile duct carcinoma. (Korean J Gastrointest Endosc 19: 588-596, 1999)

Key Words: Bile duct carcinoma, ERCP, Biopsy, Cytology

ERCP

가 .

17) 1)

8-12) 12-14) 1991 8 1996 2

40

가

61.7 (31 82) , 1.9 1 .

1

가 가 가

2)

가 (1) : ERCP 3.2 mm
(JF 200, Olympus, Japan)

가 , 가

가 .2315

1) 30

60% 20%

11)

(sclerotic type),
(papillary type) (protruded type)

X-
(FB-23K, Olym-
pus, Japan)
1 6
10%
(EST)
(2) : 28
ERCP
2 3 mL -70°C
Cytospin (Cytospin 2, Shandong)
400 g 3
, papanicolaou

Table 1. Sensitivity of Transpapillary Biopsy According to the Tumor Location, Morphology, and Number of Biopsy (N=40)

	N	Positive for malignancy	Sensitivity (%)
Total	40	26	65.0
Location			
Upper	25	17	68.0
Middle	14	9	64.3
Lower	1	0	0
Morphology			
Sclerotic	32	21	65.6
Papillary	5	3	60.0
Protruding	3	2	66.7
Number of biopsy			
1	12	8	66.7
2	15	9	60.0
3	8	6	75.0
4	4	2	50.0
> 5	1	1	100

(3) :
(percutaneous fine-needle aspiration
cytology) , 1
2
p 0.05
1)
40 61.7 ± 11.5 (31
82) 1.9 : 1
25 , 14 ,
1
, 28
17 , 11

2)
65.0%
(26/40) ,
68.0% (17/25), 64.3% (9/14),
0% (0/1) , (scler-
otic type) 65.6% (11/32), (papillary type)
60.0% (3/5), (polypoid type) 66.7% (2/3)
2 63.0%
(17/27), 3 69.2%
(Table 1).
3)
71.4%
(20/28) ,
82.4% (14/17), 54.5% (6/
11) , 80.0% (16/

Savader 10) 44%

35) 121-243641) 2842)

, Mohandas 35) 가

29% 63% 26)

70 가 ERCP

.21-243641) 가 821)

2) 가 'Geenen '가 가 . Kubota 8)

.27) Ferrari 4) 가

20% 4

, Foutch 26) Rupp 43) 100%, 88.8% . Sugi-

82% yama 21) (EST) 81%

60% 가 ,

1) 60% 가

가 ,

80% 가

가 ,9) 가 ,23)

가 가

.29) 가 가

Kuroda 13) 가

66.7% 가

Howell 29) .

61% Wiersema 15) bias,

30%

Terasaki 30) PTC 가

3F 5F , Wiersema 15) , ,

가 80 63 ,8921
 가 65% 2
 , , .
 41% , 41%, 30%
 70% 가 48%
 2) . Kurzawinski 가 96%
 가 가 , 가
 47 33% , 가 가
 46 69% 가 가
 가 가 가
 가 . Wiersema 15) 80

70% 48% 가
 (n=28) (n=40) 가
 71.4% 가 가 65%, 가 가
 가 가 28 가 가
 75%, 71.4% 가
 . , , 가 가
 ERCP 가 가

가 65% . 40 (front-biting)
 , , chi 14) (side-opening) , Magu-
 가 21) ,
 (32/40), ,
 8(FB39,
 Olympus, Japan)가 가
 (FB-23K, Olympus, Japan)

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