

CT

:

1

: 가 CT (CT colonography) 72 63 CT (major), (moderate), CT (minor) , 가 : 72 49 (68.1%) 82 . 49 8 (11.1%), 17 (23.6%), 39 (54.2%) . 63 38 (60.3%) 60 (11.1%), 38 2 (3.2%), 7 가 (p > 0.05). 가 가 (30.6%) (12.7%) (p < 0.05).

CT (multidetector - row spiral computed tomography, MDCT) (7 - 15).

가 , CT (CT colonography) , 가 가 CT 1 cm 가 CT (1 - 5). , CT (extracolonic finding)

가 가 가 (6 - 9). 2005 1 2006 4 CT 가 CT (screening) CT 72 CT

1

2007 8 29

2007 10 15

63

: CT

72 48 , 24
 50.9 (20 - 76) .
 가 , , CT (picture archiving and communicating system: PACS) (Starpacs 5.0, Infinitt Co., Seoul, Korea) . CT ,
 CT . 63
 52 , 11 가 (axial) CT
 48.7 (27 - 71) . 가 .
 , , CA 19-9 (major),
 CT . (moderate), (minor) .
 가
 CT , 가 ,
 CT 가
 8 4 4 가
 L (Colyte, , ,) .
 20 HU (Hounsfield Unit) 10
 가 mm , (solid) 가
 CT , 20 HU 10
 scout CT mm , , , ,
 40 slice CT scanner (Brilliance - 40, Philips Medical Systems, Best, the Netherlands) , 20 HU
 , , ,
 CT 가 CT .
 . 1.5 mm slice thickness, 40 2.3 HU
 mm (pitch 1.176), 120 kV, 160 mAs parameter 20 HU 10 mm
 2 , CT ,
 0.5 mm . , , , ,

Table 1. Extracolonic Findings in 72 Symptomatic Patients

Major ECF	No.	Moderate ECF	No.	Minor ECF	No.
Cardiomegaly	3	Renal stone	7	Renal cyst	15
Lymphadenopathy*	2	Renal parenchymal reduction	2	Accessory spleen	8
Hepatic mass	1	Benign-looking adenal mass	2	Bony island	6
Ileal wall thickening	1	Hepatic cyst-like mass	2	Lung calcific granuloma	5
Stone with hydronephrosis	1	Renal cyst-like mass	1	Bone cyst	4
Renal solid mass	1	GB stone	1	Hepatic cyst	3
		CBD stone	1	Injection granuloma	1
		Lymphadenopathy [†]	1	Mild scoliosis	1
		Spinal stenosis	1	Old fracture	1
		Lung consolidation	1	Peripheral emphysema	1
				Fatty liver	1
				Focal splenic calcification	1
				Focal fibrotic band of lung	1
				Retroaortic left renal vein	1
				Benign adrenal mass	1
				Focal hepatic calcification	1
				Calcified lymph node	1
				IUD	1
				Hiatal hernia	1

Note. ECF, extracolonic finding; No., number of patient

*Associated with suspected malignancy

[†]Associated with suspected inflammatory bowel disease

, 20 HU
 , 11 HU 30 mm
 , 10 HU
 30 mm
 30 mm
 , 가,
 (teratoma),
 ,
 , (bony island),
 (6, 8 - 10, 13).
 SPSS version 11.5 (SPSS Inc, Chicago, Illinois,
 U.S.A.) , (Chi - Square test),
 Fisher's exact test p 0.05
 가 .

72

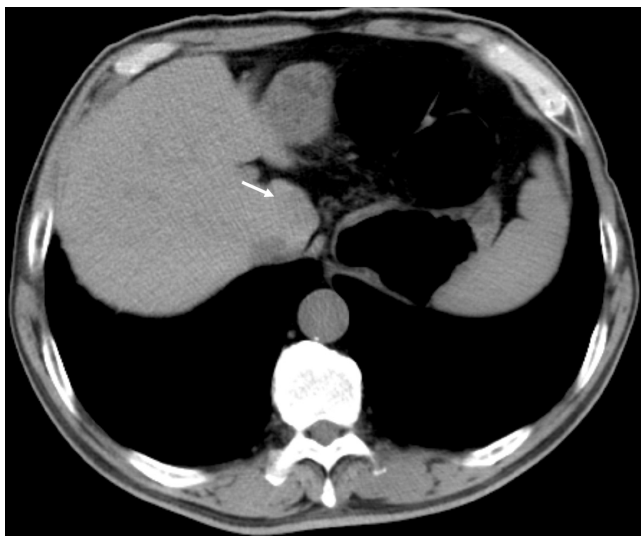
Table 1

72	49 (68.1%)
49	8 (11.1%)
8	9

3 , 2 ,
 1 , 1
 2 가
 CT
 1
 CT
 (Fig. 1). 17 (23.6%) 19
 7 ,
 2 , 2 ,
 2 , 1 (Fig. 2). 39 (54.2%)



Fig. 2. Symptomatic 73-year old man with moderate important finding in CT colonography. Non contrast axial CT scan shows calcified stone density (arrow) in distal CBD.



A



B

Fig. 1. Symptomatic 76-year old man with major important finding in CT colonography.

A. Non contrast axial CT scan shows about 2 cm sized ill-defined low density nodule (arrow) in caudate lobe of liver, possible hepatic metastasis. Attenuation measured about 54 HU.

B. Non contrast axial CT scan shows segmental wall thickening at ascending colon, representing cancer. Note also about 17mm sized well-defined low density lesion in left kidney. Attenuation measured about 9 HU, suggesting simple cyst.

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54 , 15 ,
8 , 6 , 5 , 4
(Fig. 3).

63

Table 2

CT

63 38 (60.3%) (68.1% versus
. 38 60 60.3%) (54.2% versus 55.6%)
. 38 2 (3.2%) 2 가 가
, 2 . 7 (11.1%) 7 (30.6% versus 12.7%)
, 2 가 ,
, 2 . 35 (55.6%) 51 (7 - 15).
, 9 , 7 , 7 ,
7 .

Table 3

72 63
68.1% (49/72) 60.3% (38/63) ,
($p = 0.35$).
(11.1%, 8/72)
(3.2%, 2/63)
($p = 0.1$).
(23.6%, 17/72) (11.1%,
7/63) 54.2%
($p = 0.06$).
(39/72) 55.6% (35/63) ,
($p = 0.7$). 가 가
30.6% (22/72) ,
12.7% (8/63) , 가
($p = 0.01$).

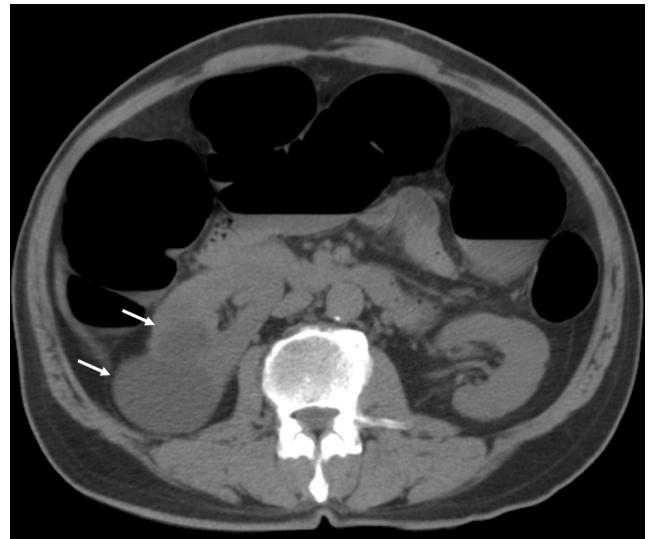


Fig. 3. Asymptomatic 72-year old man with minor importance finding in CT colonography. Non contrast axial CT scan shows about two round cystic lesions (arrows) in right kidney. Attenuation measured about 8 - 10 HU, suggesting simple cyst.

Table 2. Extracolonic Findings in 63 Asymptomatic Patients

Major ECF	No.	Moderate ECF	No.	Minor ECF	No.
Cardiomegaly	2	GB stone	2	Bony island	9
		Renal stone	2	Hepatic cyst	7
		Lung consolidation	1	Renal cyst	7
		Chronic liver disease	1	Accessory spleen	7
		Undescended testis	1	Focal hepatic calcification	3
				Focal renal calcification	2
				Focal splenic calcification	2
				Subsegmental atelectasis	2
				Lung calcific granuloma	2
				Pleural thickening	2
				Ovarian cyst	1
				Splenic cyst	1
				IUD	1
				Schmor 's nodule	1
				Fatty liver	1
				Nephrectomy state	1
				Spinal hemangioma	1
				Retroaortic left renal vein	1

Note. ECF, extracolonic finding; No., number of patient; IUD, intrauterine device

Table 3. Extracolonic Findings at CT Colonography According to the Clinical Importance

	Clinical Importance of Extracolonic Findings							
	Any Findings	Major important		Moderate important		Minor important		Major + moderate important
	Patients	Patients	Lesions	Patients	Lesions	Patients	Lesions	Patients
Symptomatic Patients	49/72 (68.1%)	8/72 (11.1%)	9/82 (11.0%)	17/72 (23.6%)	19/82 (23.2%)	39/72 (54.2%)	54/82 (65.9%)	22/72 (30.6%)
Asymptomatic Patients	38/63 (60.3%)	2/63 (3.2%)	2/60 (3.3%)	7/63 (11.1%)	7/60 (11.7 %)	35/63 (55.6%)	51/60 (85%)	8/63 (12.7%)
<i>p</i> -value	0.35	0.1		0.06		0.7		0.01

, , , CT , . CT (incidental) (16 - 19). Vallancien (16) 가 CT Hara (6) 264 CT 가 Masood (19) 109 (41.3%) , 30 (11.4%) , 가 CT Rajapaksa (10) 250 CT 83 (33.2%) , 136 , 53 (38.9%) 17 (12.5%) , 66 (48.5%) 가 , 가 CT (6). 72 CT 49 (68.1%) CT 8 (11.1%) CT Gluecker (8) 681 CT CT 30.6%, 12.7% , CT 2 681 469 (69%) 71 (10%) 183 (27%) , Pickhardt 가 CT 1 - 65%, 5 - 10% 4 - 6% , 10 - 23% 63 38 (60.3%) 3.3% 11.1% 55.6% CT 가 13%가 31%, CT

가 , CA 19-9

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Extracolonic Findings of CT Colonography: Frequency Analysis between Symptomatic and Asymptomatic Patients

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Purpose: To perform a frequency analysis of the extracolonic findings (ECF) of the CT colonography between symptomatic and asymptomatic patients.

Materials and Methods: Seventy-two consecutive symptomatic patients and sixty-three consecutive asymptomatic patients who underwent CT colonography were enrolled in this study. Non-contrast enhanced axial images were reviewed retrospectively to identify the ECF and classified them as major, moderate or minor important findings according to their potential clinical importance. The frequencies of each classification and ECF were analyzed and compared between two groups (symptomatic and asymptomatic).

Results: Eighty-two ECF were identified in 49 (68.1%) of the 72 symptomatic patients. The findings were classified as follows: major (8/49, 11.1%), moderate (17/49, 23.6%), minor (39/49, 54.2%). Sixty ECF were detected in 38 (60.3%) of the 63 asymptomatic patients. The findings were classified as follows: major (2/38, 3.2%), moderate (7/38, 11.1%), minor finding (35/63, 55.6%). No statistically significant differences were found between the two groups ($p > 0.05$) for the overall ECF frequency. However, a significantly higher frequency of major or moderate ECF was observed in symptomatic patients (30.6%) compared to asymptomatic patients (12.7%) ($p < 0.05$).

Conclusion: The overall ECF frequency was similar between symptomatic and asymptomatic patients; however, the frequency of clinically important ECF (major or moderate) was higher in symptomatic patients, compared to asymptomatic patients. This result suggests that the major or moderate ECF required a further work up or treatment in symptomatic patients.

Index words : Colonography, Computed tomographic
Incidental findings
Mass screening
Tomography, X-Ray Computed

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