

Original article

Non-hodgkin's Lymphoma Involvement of Peritoneum, the Omentum and Mesentery :CT Image Analysis

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ABSTRACT

Objective: We aimed to describe the computed tomography (CT) findings of non-hodgkin's lymphoma (NHL) patients with

Methods:

to find patients suffering from NHL with peritoneal, omental and mesenteric involvement. 11 patients (8 males and 3 females with ages range from 7 to 70) were selected and confirmed by pathology biopsy. **Results:** Peritoneal involvement was seen in 8 patients in the form of nodular (n=5), linear (n=2) and swelling thickening (n=1). The omental involvement in the form of omental mass (n=1), nodular thickening (n=2) and omental mass (n=1). Masses encapsulated the mesenteric vessels and celiac trunk which produced a "sandwich-like" appearance (n=4), and masses and enlarged retroperitoneal lymph nodes (n=2). Intestinal wall involvement in the form of thickening (n=8) and aneurysmal dilatation (n=2). In addition, patients with invasion of the periphery of the liver (n=2),

Conclusion:

of swelling thickening and abdominal huge mass surrounding blood vessels, bowel demonstrating signs of aneurysmal dilatation," "stellate" mesenteric appearance, multi-organ involvement and small ascites.

Key Words:

Abdomen; Non-Hodgkin; lymphoma; X-Ray; Computed Tomography

INTRODUCTION

The authors have no commercial,proprietary,or financial interest in the products or companies

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MATERIALS AND METHODS

General materials

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and confirmed by biopsy and pathology. Out of the 11 cases, there were 8 male and 3 female, aged 7~70 years, and the median age was 46 years. The main clinical symptoms were abdominal pain,

Inspection method

CT scan model was Somatom Sensation 64. Scanning position:

automatic Ma technology, 1.0s per lap, layer thickness 5mm, interval 5mm. Reconstruction algorithm: Standard algorithm

observed and checked up 30min before the oral administration of

agent Omnipaque 350mg/ml was used, the dosage was calculated according to per kilogram of body weight 300~450mg iodine

injection of contrast, the scan time: arterial phase 25~30s, venous

Image analysis

masses; peritoneal linear thickening or nodular thickening; ascites

RESULTS

Lymphoma Pathology results

corresponding pathology confirmed the various subtypes of NHL,

CT signs (table 2)

After the CT we found out the peritoneal thickening with significant strengthening in 8 cases, nodular thickening in 2 cases (figure 1), line sample thickening in 5 patients (figure 1) and tumor sample thickening in 1 case (figure 2). Retinal thickening of sample in 7 cases (figure 3), nodular thickening in 2 cases, tumor sample thickening in 1 case (figure 4) was seen. Mesenteric

and celiac axis, the formation of the so-called "sandwich" (figure 3), corresponding 4 cases of 4 ~ 13 cm in diameter. Multiple

lymph nodes in 2 cases. 8 uneven bowel wall thickening and mucosal fold hypertrophy in jigsaw appearance (figure 5). Sample insufflate aneurysm expansion in 2 cases was observed (figure 6). Hepatic insufficiency 2 cases had invasion (figure 2), liver, spleen

volume of ascites in 4 cases, one case was seen without a large

DISCUSSION

Table 2 The frequency of the abdominal CT performance

		Results	
		8	
	9.10%	Retinal invasion	90.90%
	9.10%		54.50%
	18.20%	thickening	8
			18.10%
		Organ invaded	18.10%
			90.90%

[4,5]

the transverse mesocolon, and finally gastric mesocolon surface
autopsy including 64 cases of peritoneal invasion
of B cell origin, Scientists think that the tumor is derived from the

Lymphoma invasion of peritoneal, retinal or mesentery pathological features

[7-9]

11 patients were diffuse large B cell type, 8 out of 11 were males,

Clinical features

and it was often inconsistent with the imaging findings, and the

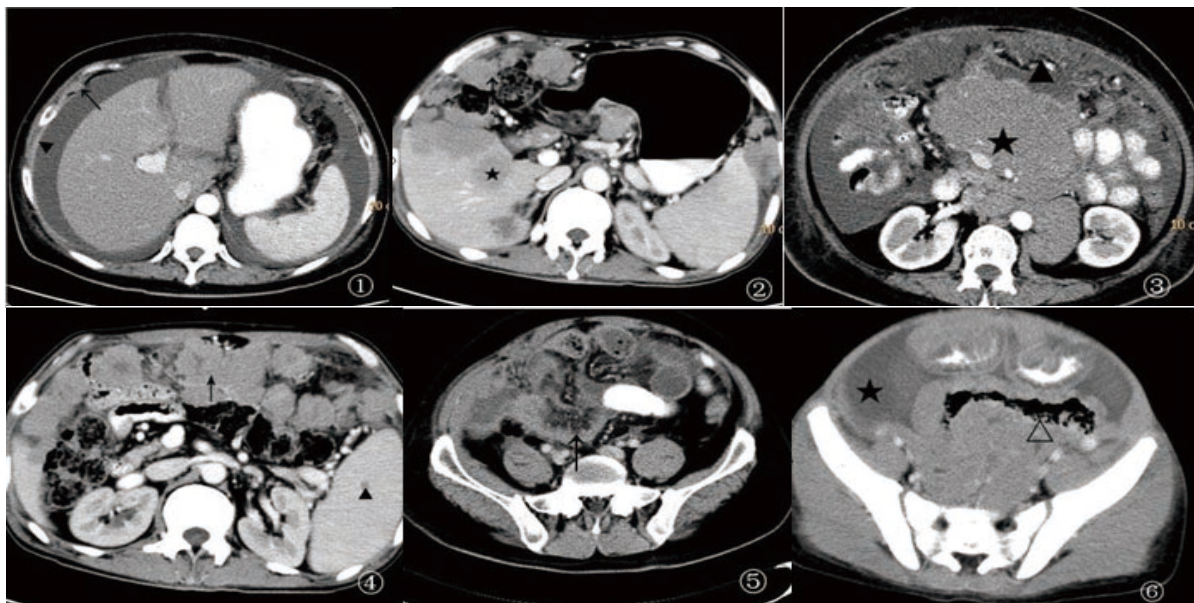


Figure 1 patients, female, 58, diffuse large B cell lymphoma. Retinal nodular thickening (†), line sample thickening (▲), significantly improved. Figure 2 patients, male, 48, diffuse large B cell type. Retinal thickening (†) mass samples, the liver invaded (★). Figure 3 and figure 1 in the same patient. Omentum is bread change (▲); Mesenteric root irregular lumps and surrounding the mesenteric vessels, forming the so-called "sandwich" (★). Figure 2 and figure 4 patients with the same. Retinal thickening (†) mass samples, the spleen invaded (▲). Figure 5 patients, male, 33, diffuse large B cell lymphoma. Mucosal fold hypertrophy (†) a jigsaw appearance. Figure 6 patients, male, 7 years old, lymphatic tumor. Thickening of the sigmoid colon wall and lumen aneurysm sample expansion (△), a small amount of ascites mesenteric clearance (★).

5.0cm in 4 cases. There are no obvious reasons for enlargement

opposed to colorectal cancer). Bowel wall thickening is much more apparent, about 1.0 cm-3.0 cm, thickened bowel wall is disappeared and the intesm

CT performance analysis

Lymphoma peritoneal invasion in peritoneal thickening with the main CT manifestations, a few cases are nodular thickening thickening, even it can display submillimeter nodules. Out of the 8 cases of patients with peritoneal invasion; in 5 cases the CT manifestation shows pattern thickening, 2 cases of nodular thickening, 1 case of thickening tumor samples, all peritoneal involvement with omental thickening or mesangial nodular and 7 cases with a small amount or quantity of ascites were seen.

Omentum and mesentery involvement with or without the with retinal invasion, including retinal thickening of sample in 7 cases, nodular thickening was seen in 2 cases, tumor sample thickening in 1 case. Peritoneal and omental thickening is not the image is difficult to identify. But the omentum and peritoneal be further confirmed.

5-13 cm in diameter, hemorrhagic, necrosis is rare, involving a

forming the so-called "sandwich" were observed in 4 cases and

thickening and can be used as an NHL characteristic CT

wall thickening, stiffness, irregular lumens stenosis, or narrow

the bowel, liver and spleen had rare signs, can make a definite

findings, thickening of peritoneum and omentum; especially

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Acknowledgments

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