

· 临床研究 ·

老年胰腺癌临床首发症状及增强 CT 影像征象分析

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【摘要】目的 研究老年胰腺癌的临床首发症状及增强 CT 影像征象,以提高对老年胰腺癌的认识。**方法** 回顾性分析北京老年医院 2014 年 2 月至 2021 年 12 月经病理确诊的 65 例胰腺癌患者,根据年龄分为老年组 43 例(年龄 ≥ 60 岁)和中年组 22 例($45 \leq$ 年龄 < 60 岁),总结老年胰腺癌患者的特点,同时对 2 组患者的临床首发症状及增强 CT 影像征象进行对照分析。采用 SPSS 22.0 软件进行数据分析。根据数据类型,组间比较分别采用 t 检验及 χ^2 检验。**结果** 本研究共纳入胰腺癌患者 65 例,其中老年组 43 例(66.2%),中年组 22 例(33.8%)。老年组发生在胰头部、出现黄疸、消瘦及胰管扩张的比例分别为 51.2%(22/43)、55.8%(24/43)、53.5%(23/43)及 58.1%(25/43),高于中年组 27.3%(6/22)、13.6%(3/22)、27.3%(6/22)及 27.3%(6/22),差异均有统计学意义(均 $P < 0.05$);而发生在胰尾部、出现腹痛、腹部压痛及肝转移比例分别为 9.3%(4/43)、32.6%(14/43)、44.2%(19/43)及 23.3%(10/43),低于中年组 40.9%(9/22)、63.6%(14/22)、72.7%(16/22)及 50.0%(11/22),差异均有统计学意义(均 $P < 0.05$)。2 组患者其他指标比较,差异均无统计学意义。**结论** 老年胰腺癌具有一定的特征性,结合其临床表现及影像征象可提高其诊断准确率。

【关键词】 老年人;胰腺癌;体层摄影术;X 线计算机

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First symptoms and enhanced CT imaging signs of pancreatic cancer in the elderly

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【Abstract】 To study the first symptoms and signs of enhanced CT imaging in the elderly patients with pancreatic cancer in order to improve the awareness of pancreatic cancer in the elderly. **Methods** A retrospective analysis was carried out on 65 patients with pancreatic cancer confirmed by pathology admitted in our hospital from February 2014 to December 2021. According to their age, they were assigned into an elderly group (≥ 60 years old, $n=43$) and a middle-aged group (aged from 45 to 59 years, $n=22$). The characteristics of elderly patients with pancreatic cancer were summarized. The clinical first symptoms and signs of enhanced CT imaging were compared and analyzed between the two groups. SPSS statistics 22.0 was used for statistical analysis. Data comparison between two groups was performed using t test or χ^2 test depending on data type. **Results** A total of 65 patients with pancreatic cancer were included in this study, including 43 cases (66.2%) in the elderly group and 22 cases (33.8%) in the middle-aged group. The incidences of tumor in the pancreatic head, jaundice, emaciation and pancreatic duct dilatation in the elderly group were 51.2% (22/43), 55.8% (24/43), 53.5% (23/43) and 58.1% (25/43), respectively, which were significantly higher than those in the middle-aged group [27.3% (6/22), 13.6% (3/22), 27.3% (6/22) and 27.3% (6/22), all $P < 0.05$]. The rates of tumor in the pancreatic tail, abdominal pain, abdominal tenderness and liver metastasis were 9.3% (4/43), 32.6% (14/43), 44.2% (19/43) and 23.3% (10/43), respectively in the elderly group, obviously lower than those in the middle-aged group [40.9% (9/22), 63.6% (14/22), 72.7% (16/22) and 50.0% (11/22), all $P < 0.05$]. There were no statistical differences in other indicators between the 2 groups. **Conclusion** Elderly pancreatic cancer has certain characteristics. Combining its clinical manifestations and imaging signs can improve the accuracy of diagnosis.

【Key words】 aged; pancreatic cancer; tomography; X-ray computer

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胰腺癌好发于老年人^[1-3],老年胰腺癌患者具有发病隐匿^[4]、早期诊断困难^[5]及恶性程度高^[6]等特点,早发现、早诊断对提高老年胰腺癌患者的生存率尤为重要。本研究通过对老年胰腺癌临床及CT影像表现进行研究,并与中年胰腺癌进行对照分析,旨在提高对老年胰腺癌的认识。

1 对象与方法

1.1 研究对象

回顾性分析北京老年医院 2014 年 2 月至 2021 年 12 月经穿刺或手术切除病理确诊的 65 例胰腺癌患者的临床资料。纳入标准:(1)胰腺癌病理证实均为胰腺导管细胞癌;(2)具有完整的临床首发症状资料、病理分型及三期增强 CT 扫描的胰腺癌患者。排除标准:(1)临床、病理及影像资料不全;(2)同时伴有其他恶性肿瘤病史。将 65 例胰腺癌患者按年龄不同分成 2 组,其中老年组患者 43 例,中年组患者 22 例。本研究已通过医院医学伦理委员会伦理审核(BJLNYY-伦审-批第 2018-010 号)。

1.2 观察指标及研究方法

观察老年组胰腺癌患者的临床及增强 CT 影像征象,总结其病变特点。对比观察老年组与中年组患者的临床主要首发症状(腹痛、腹胀、腰背痛、消瘦、乏力、发热、黄疸、呕吐及腹部压痛)及增强 CT 影像征象等指标。

1.3 仪器及检查方法

1.3.1 仪器及扫描参数 采用德国西门子双源 CT

(Somatom Definition Flash),一次性双筒高压注射器(200/200 ml),造影剂选用 350 mg/ml 的碘海醇(50 ml/瓶,北京北陆药业有限公司)。扫描参数为管电压 120kV,管电流 250~300mA,层厚 2mm,螺距 2mm。
1.3.2 检查方法 检查前患者禁食 4~6 h,扫描前 30 min 口服温水 500 ml 以充盈胃肠道,所有患者均采用仰卧位,平扫及三期增强扫描范围均从肝顶至双肾下极。平扫后,经肘静脉进行高压团注造影剂,注药流量为 3~3.5 ml/s。采用三期增强扫描,动脉期在造影剂开始注射 20~25 s 后进行扫描,胰腺期在 35~45 s 后进行扫描,门脉期在 60~75 s 后进行扫描。

1.4 统计学处理

采用 SPSS 22.0 统计软件进行数据分析。计数资料用例数(百分率)表示,采用 χ^2 检验(理论频数 ≥ 5),连续校正 χ^2 检验($1 \leq$ 理论频数 < 5),Fisher 确切概率检验(理论频数=0);计量资料用均数 $\pm$ 标准差($\bar{x} \pm s$)表示,采用两独立样本 t 检验。 $P < 0.05$ 为差异有统计学意义。

2 结果

2.1 2 组患者性别、肿瘤部位及病理比较

老年组发生在胰头部(图 1A)及胰尾部(图 1B)比例,与中年组比较,差异均有统计学意义(均 $P < 0.05$);而老年组发生在胰体部(图 1C)及胰体尾部(图 1D)比例,与中年组比较差异无统计学意义;2 组患者性别比例比较,差异无统计学意义($P > 0.05$;表 1)。

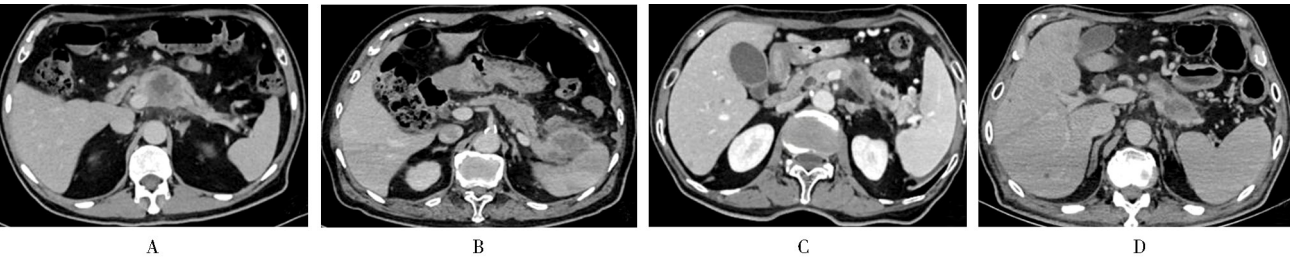


图 1 老年胰腺癌患者肿瘤好发部位

Figure 1 Tumor prone sites in elderly patients with pancreatic cancer

A: male, 64 years old, ductal adenocarcinoma of pancreatic head, pancreatic duct dilatation; B: male, 82 years old, pancreatic caudal ductal adenocarcinoma, the splenic hilum was involved and the pancreatic duct was dilated; C: female, 69 years old, ductal adenocarcinoma of pancreatic body, pancreatic duct dilatation, common bile duct dilatation; D: male, 72 years old, ductal adenocarcinoma of pancreatic body and tail, multiple intrahepatic metastases.

表 1 2 组患者性别及肿瘤部位比较

Table 1 Comparison of gender and tumor location between two groups [n(%)]

Group	n	Gender		Tumor location			
		Male	Female	Head of pancreas	Body of pancreas	Tail of pancreas	Body and tail of pancreas
Elderly	43	25(58.1)	18(41.9)	22(51.2)	12(27.9)	4(9.3)	5(11.6)
Middle aged	22	16(72.7)	6(27.3)	6(27.3)	5(22.7)	9(40.9)	2(9.1)
χ^2		1.330		3.886	0.202	7.219	0.000
P value		0.249		0.049	0.653	0.007	1.000

2.2 2组患者临床首发症状比较

与中年组比较,老年组临床首发症状主要表现为黄疸、消瘦、腹痛、腹部压痛,差异均有统计学意义(均 $P<0.05$);2组患者中,临床首发症状出现腹胀、腰背痛、乏力、发热及呕吐时,组间差异均无统计学意义(均 $P>0.05$;表2)。

2.3 2组患者增强CT影像征象比较

2.3.1 2组患者增强CT影像征象计数资料比较 2组患者增强CT影像征象中胰管扩张及肝转移瘤占比比较,差异均有统计学意义(均 $P<0.05$);其他指标比较,差异均无统计学意义(表3)。

2.3.2 2组患者CT影像征象计量资料比较 2组患者肿瘤最大径、增强CT平扫、动脉期、胰腺期及门脉期CT值比较,差异均无统计学意义(均 $P>0.05$;表4)。

3 讨论

本研究通过对老年胰腺癌与中年胰腺癌临床首发症状及增强CT影像征象进行对照研究,发现老年胰腺癌患者好发于胰头部,临床首发症状中黄疸、身

体消瘦及胰管扩张高发;而中年胰腺癌患者好发于胰尾部,常出现腹痛、腹部压痛及肝转移。

胰腺癌的发病部位、肿瘤大小、临床首发症状及影像征象具有一定的相关性。本项研究发现老年组胰腺癌主要好发于胰头部,胰尾部少见,这与Macchini等^[7]和Garcia等^[8]研究结果一致;胰头部胰腺癌由于临近胆总管末端,在胆总管受到压迫或胰腺癌直接浸润胆管壁时易出现黄疸^[9],本研究结果也进一步证实了老年组胰腺癌患者黄疸高发。而当患者出现黄疸,尤其是伴有进行性黄疸加重、皮肤瘙痒、尿色深黄及粪便呈陶土色时易引起临床医师重视,因此当肿瘤相对较小时就会被发现。本研究发现老年组较中年组胰腺癌患者胰管扩张高发,主要原因是由于老年胰腺癌好发胰头部,此部位胰腺癌容易压迫胰管开口,从而导致胰液淤积,胰管扩张;也有一部分原因是老年人慢性胰腺炎常见^[10],慢性胰腺炎患者常常导致胰管呈串珠样或不规则形扩张^[11]。中年组胰腺癌患者发生在胰头部位相对少见,主要发生在胰尾部,发生在胰尾部胰腺癌,由于距离胆总管位置较远,不易引起胆道梗阻,一般较少出现黄疸症状。

表2 2组患者临床首发症状比较

Table 1 Comparison of first clinical symptoms between two groups										[<i>n</i> (%)]
Group	<i>n</i>	Abdominal pain	Abdominal distention	Low back pain	Emaciation	Weakness	Fever	Jaundice	Vomit	Abdominal tenderness
Elderly	43	14(32.6)	27(62.8)	6(14.0)	23(53.5)	18(41.9)	7(16.3)	24(55.8)	7(16.3)	19(44.2)
Middle aged	22	14(63.6)	14(63.6)	2(9.1)	6(27.3)	9(40.9)	5(22.7)	3(13.6)	3(13.6)	16(72.7)
χ^2		5.733	0.004	0.027	4.048	0.005	0.402	4.089	0.000	4.770
<i>P</i> value		0.017	0.947	0.868	0.044	0.941	0.526	0.043	1.000	0.029

表3 2组患者增强CT影像征象计数资料比较

Table 3 Comparison of enhanced CT image signs between two groups										[<i>n</i> (%)]
Group	<i>n</i>	Bile duct dilatation	Pancreatic duct dilatation	Nvasion of adjacent tissues	Vascular invasion	Lymph node metastasis	Liver metastasis	Other organs metastasis	Ascites	
Elderly	43	18(41.9)	25(58.1)	30(69.8)	10(23.3)	21(48.8)	10(23.3)	19(44.2)	16(37.2)	
Middle aged	22	9(40.9)	6(27.3)	15(68.2)	4(18.2)	8(36.4)	11(50.0)	5(22.7)	9(40.9)	
χ^2		0.005	5.558	0.023	0.049	0.916	4.760	2.878	0.084	
<i>P</i> value		0.941	0.018	0.879	0.826	0.338	0.029	0.090	0.772	

表4 2组患者增强CT计量资料比较

Table 4 Comparison of measurement data of enhanced CT between two groups							($\bar{x}\pm s$)
Group	<i>n</i>	Maximum diameter of tumor(mm)	Flat scan(HU)	Arterial phase(HU)	Pancreatic phase(HU)	Portal phase(HU)	
Elderly	43	47.54±17.26	29.37±7.72	38.14±15.39	41.72±14.90	44.41±14.36	
Middle aged	22	62.41±20.10	28.36±8.44	36.46±12.51	37.18±12.08	36.68±16.16	
<i>t</i>		1.528	0.659	0.136	1.271	3.202	
<i>P</i> value		0.221	0.420	0.713	0.264	0.078	

本研究发现中年组胰腺癌好发胰尾部,这与 Leon 等^[12]和 Nahm 等^[13]研究结果基本一致。胰尾位于腹中线左侧,毗邻胃大弯、脾静脉及脾门等,发生在胰尾部的胰腺癌出现腹痛、腹部压痛等症状时极易误诊为胃炎、胃溃疡等常见的消化道疾病^[14],从而延误病情,导致胰腺癌确诊时部分患者已出现周围组织浸润及血行转移,发生在胰尾部胰腺癌较胰头癌预后更差^[15]。

综上,老年胰腺癌具有一定的特征性,结合其发病部位、临床症状及影像征象,能较好地提高老年胰腺癌的诊断准确率。

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