

An Umbilical Mass as the Initial Presentation of Pancreatic Carcinoma

Jun-Te Hsu, MD; Chin-Yew Lin¹, MD; Yi-Yin Jan, MD; Han-Ming Chen², MD, PhD; Miin-Fu Chen, MD

Pancreatic carcinoma is a virulent disease with an extremely poor prognosis. The majority of tumors are unresectable at the time of diagnosis because of the involvement of major vessels or distant metastasis. Though about 30 cases of pancreatic carcinoma with umbilical metastasis have been reported in the English literature, an umbilical mass as the initial presentation is rare. Herein, we report on a 71-year-old woman who presented with an umbilical ulcerative mass that was diagnosed as an adenocarcinoma after excision. Abdominal computed tomography and immunohistochemical staining for carbohydrate antigen 19-9 of the umbilical mass specimen confirmed the diagnosis of pancreatic head carcinoma with umbilical metastasis. The patient received double bypass surgery one month later due to the development of obstructive jaundice and cholangitis. She expired 4.5 months after the last surgery due to progression of the disease. (*Chang Gung Med J* 2006;29(4 Suppl):17-20)

Key words: pancreatic cancer, Sister Mary Joseph's nodule, umbilical mass.

Early diagnosis of pancreatic cancer remains difficult due to the disease's subtle clinical presentation. The majority of pancreatic cancers are unresectable at the time of diagnosis because of the involvement of major vessels or distant metastasis. Though about 30 cases of pancreatic carcinoma with umbilical metastasis have been reported in the English literature,⁽¹⁻⁸⁾ an umbilical mass as the initial presentation is rare.^(4,6,7) Herein, we report on a case that presented initially with an umbilical ulcerative mass and was diagnosed as an adenocarcinoma after excision. Abdominal computed tomography (CT) and immunohistochemical staining for carbohydrate antigen 19-9 (CA 19-9) of the umbilical mass specimen confirmed the diagnosis of pancreatic head carcinoma with umbilical metastasis. The patient received double bypass surgery one month later due to the development of obstructive jaundice and

cholangitis.

CASE REPORT

A 71-year-old woman initially came to our hospital because of vague abdominal pain. The pain was dull without radiation and no relieving or predisposing factors were found. There was no specific finding after serial examinations involving abdominal sonography, panendoscopy, sigmoidoscopy and a lower gastrointestinal barium enema. Unfortunately, she suffered from an umbilical ulcerative mass four months later. She received oral antibiotic treatment and wound care for two months. Nevertheless, the wound did not heal. She was then admitted to receive excision of the umbilical mass. Physical examination on admission disclosed a mild pale conjunctiva without icteric sclera. The abdomen was

From the Department of General Surgery, Chang Gung Memorial Hospital, Taipei; ¹Department of Pathology, Chang Gung Memorial Hospital, Keelung. ²Ten-Chan General Hospital.

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Correspondence to: Dr. Han-Ming Chen, Ten-Chan General Hospital, 155, Yan-Ping Road, Chung-Li, Taoyuan, Taiwan, R.O.C. Tel: 886-3-4629292 ext. 28877; E-mail: ming1838@yahoo.com

soft and flat with a finding of an umbilical ulcerative nodule measuring 2 cm x 1.5 cm containing a purulent discharge. Laboratory examination values were as follows: white blood cells, 3800/cu mm; hemoglobin, 10.9 gm/dL; total bilirubin, 1.0 mg/dl. Histological examination of the surgical specimen revealed the dermis and subcutis infiltrated by neoplastic cells, consistent with adenocarcinoma (Fig. 1). At this point, further studies were scheduled. Panendoscopy showed only a shallow duodenal ulcer. Abdominal CT demonstrated a 4 cm heterogeneous enhanced tumor at the pancreatic head (Fig. 2) consistent with malignancy. The serum levels of car-

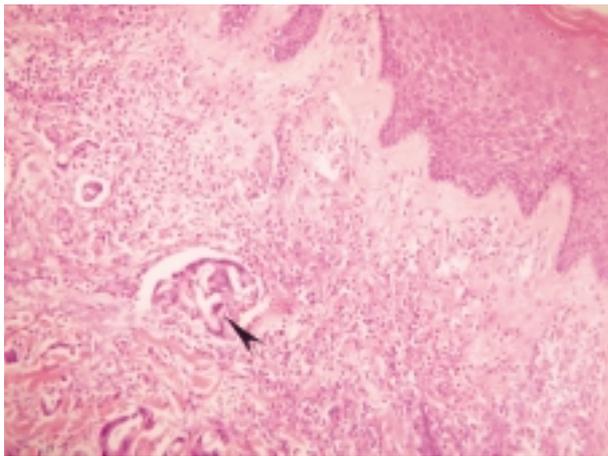


Fig. 1 Histological examination of the resected umbilicus specimen shows the presence of neoplastic cells appearing in glandular pattern within the lymphatic spaces (arrowhead), indicating a lesion of adenocarcinoma. (Hematoxylin and eosin stain, original magnification x 100).



Fig. 2 Abdominal computed tomography scan demonstrates a 4 cm heterogeneous enhanced tumor in the pancreatic head (arrowhead).

cinoembryonic antigen and CA 19-9 were 10.28 ng/mL and 256 U/mL, respectively. Further immunohistochemical staining of the umbilicus specimen also revealed strong immunoreactivity to CA19-9 (Dako, Glostrup, Denmark). In the following days, the patient experienced obstructive jaundice (total bilirubin, 12.4 mg/dl) and cholangitis. At this point, double bypass surgery (Roux-En-Y choledochojejunostomy and gastrojejunostomy) was performed. The postoperative course was uneventful. The patient was discharged 10 days after surgery. She declined to receive further treatment of chemotherapy and irradiation. She expired 4.5 months after the last surgery due to progression of the disease.

DISCUSSION

An umbilical mass, often referred as Sister Mary Joseph's nodule, has been reported in patients with carcinoma of the digestive and gynecological organs.^(2,6,7) Barrow et al.⁽²⁾ reported that cancer of the stomach accounted for 25%, ovary 12.4%, colon and rectum 10.0%, pancreas 7.4%, gallbladder 3.4%, uterus 3.0%, liver 2.4%, endometrium 1.4%, sarcoma 1.5% and small bowel 1.0%. Contiguous extension from the anterior peritoneal surface is considered to be the most important route for patients with a visceral malignancy.⁽⁶⁾ Other modes of metastatic spread to the umbilicus, such as hematogenous and lymphatic spread, have also been implicated.⁽²⁾

The umbilical mass may be the presenting symptom prior to the diagnosis of an internal malignancy. In the series of Steck et al.,⁽⁷⁾ umbilical nodules were the only presenting symptoms of internal malignancy in 29 of their 40 patients. Six patients with pancreatic carcinoma presented umbilical tumors with a mean time of six months prior to diagnosis. Table 1 shows the demographic data and outcome of patients with pancreatic carcinoma presenting an umbilical mass. No differences were seen regarding age distribution and outcome between patients with pancreatic carcinoma with umbilical metastasis and those with other distant metastasis. The average time from appearance of an umbilical mass to the patient's death was 1.7 to four months.^(1,3,4,7) In our case, the umbilical mass appeared two months prior to diagnosis of pancreatic carcinoma. The interval between the appearance of the umbilical nodule and the patient's death was 6.5

Table 1. Demographic Data and Outcome of Patients with Pancreatic Cancer Presenting with an Umbilical Mass in the Literature

Author	Year	Case No.	Gender (M/F)	Age (yr)	Survival* (mo)
Steck et al. ⁽⁷⁾	1965	6	6/0	59 (mean, range 54 to 65)	4 (mean)
Barrow et al. ⁽²⁾	1966	3	1/ 2	57 (median, range 44 to 65)	ND
Chatterjee et al. ⁽³⁾	1980	1	1/0	67	2
Shvili et al. ⁽⁴⁾	1983	1	1/0	77	2
Powell et al. ⁽⁶⁾	1984	9	6/3	ND	ND
Heatley et al. ⁽¹⁾	1989	3	2/1	ND	1.7 (mean)
Venu et al. ⁽⁵⁾	1998	1	0/1	69	ND
Hsu et al.	Present	1	0/1	71	6.5

Abbreviations: F: female; M: male; mo: months; ND: not described; yr: years.

* Time from appearance of an umbilical mass to the patient's death

months, which was longer than that reported in the literature.^(1,3,4,7)

The umbilical mass usually appears as a firm, indurate plaque or nodule, which may be fissured or ulcerated with exudation of a serosanguineous or purulent discharge. Also, the clinical appearance of an umbilical metastasis must be differentiated from that of any other lesion. Barrow et al.⁽²⁾ reported that primary neoplasms accounted for 38% of all umbilical tumors (78% of these were benign and 22% malignant), and endometriosis represented 32%, while metastatic tumors accounted for 30% of umbilical tumors. Other non-neoplastic lesions, such as pyogenic granuloma, pilonidal sinus, hypertrophic scar and umbilical hernia should also be considered in terms of differential diagnosis.⁽⁶⁾ Furthermore, in 29% of umbilical metastasis, the primary lesion site was unknown.⁽⁵⁾ Therefore, it is necessary to make an accurate histological differential diagnosis between a benign and a neoplastic umbilical mass by performing an excisional biopsy. Further work-up may focus on the primary site depending on the pathohistological finding. In our case, taking into account the patient's age, the clinical presentation of vague abdominal pain and anemia, panendoscopy and abdominal CT should be arranged to search for the possible primary visceral malignancy. Based on the information of the abdominal CT and immunohistochemical staining for CA19-9 of the umbilical mass specimen, the diagnosis of pancreatic head carcinoma with umbilical metastasis was made.

In summary, an umbilical mass as the initial presentation of pancreatic carcinoma is very rare. Faced with an umbilical mass, thorough studies are needed to find the possible visceral malignancy. Additionally, it is necessary to differentiate an umbilical mass from a benign lesion. Excision of the umbilical mass to confirm the diagnosis may be mandatory, in some instances, as a guide to clinical judgment and management. Pancreatic carcinoma with umbilical metastasis carries a dismal prognosis.

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以肚臍腫瘤為起始表現的胰臟癌

徐潤德 林進耀¹ 詹益銀 陳漢明² 陳敏夫

胰臟癌是一種嚴重危險的疾病，預後相當不好。大多數胰臟癌在被診斷出來時，因為已經侵犯到重要的血管或已有遠處的轉移而成為不可切除。雖然在英文的文獻上大約已有三十例胰臟癌合併肚臍轉移的報告，但以肚臍腫瘤為起始表現卻非常罕見。本篇報告一位 71 歲女性，以肚臍潰爛性腫瘤為表現，而這個腫瘤在切除後被診斷為腺癌。腹部電腦斷層掃描與針對肚臍腫瘤所做的免疫組織生化染色 (CA19-9) 確定了胰臟的頭部癌合併肚臍轉移的診斷。病患於一個月後發生了阻塞性黃疸與膽道炎進而接受了雙重繞道的手術，最後她因病情惡化，在手術後的 4.5 個月過世。(長庚醫誌 2006;29(4 Suppl):17-20)

關鍵字：胰臟癌，Sister Mary Joseph's 腫瘤，肚臍腫瘤。

長庚紀念醫院 台北院區 一般外科；¹基隆院區 病理科；²天晟醫院

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索取抽印本處：陳漢明醫師，天晟醫院。桃園縣中壢市延平路155號。Tel: 886-3-4629292轉28877; E-mail: ming1838@yahoo.com