



SISTER MARY- JOSEPH NODULE

A CASE PRESENTATION

PROF. DR. ADNAN GÖRGÜLÜ, DR. EROL UZUNALI

TRAKYA UNIVERSITY MEDICAL FACULTY ,DERMATOLOGY DEPARTMENT, TURKEY

INTRODUCTION

Umbilical tumours are very rare and might be benign or malignant. Malignant tumours could be classified as primary or metastatic. Metastatic tumours originate from various internal organ tumours. Sister Mary Joseph nodule is a type of cutaneous metastases, which is characterized by hard, indurated nodules or plaques on umbilicus from various malignant internal organ tumours. Generally, it is associated with advanced intraabdominal carcinoma and poor prognosis.

CASE

A 79 year olds woman who has not any disease apart from hypertension and diabetes mellitus presented with abdominal pain to a general surgery department of s hospital. Abdominal CT examination showed a lesion on pancreatic corpus which is 7-8 mm in diameter with/without contrast. Ultrasonographic examination showed this lesion is cystic. There was a hypodense lesion bulging anteriorly about 4x2 cm in diameter on the lateral side of the cyst. There were two hypodense lesions in liver, which were about 15x8 mm and 5x5 mm in diameter. On the interpretation of the abdominal CT, there was no clear seperation between tumoral mass and focal pancreatitis. The outweighing diagnosis was tumoural mass with metastases to the liver.

Later, there was a inoperable carcinoma signs on the abdominal MRI (a pancreatic tumoural lesion which is about 4x3 cm in diameter and less enhanced with contrast compared to the pancreas and splenic invasion signs) and there were two lesions resembling hemangioma in the liver and mild free fluid at the left and right paracolic areas, perihepatic areas, Morrison and Douglas pouch, umbilicalemi and infectious signals on the umbilical channel under the skin.

Afterwards, the patient has been advised to consult to Trakya University Medical Faculty Medical Oncology Clinics. The patient was investigated there and consulted to general surgery. At the Surgery-Radiology council on 15.02.2008, the decision was the mass was inoperable and invaded the splenic vein and if patient requests a biopsy, she should apply to the interventional radiology department. Later, chemotherapy and radiotherapy were planned for the patient. On 11.03.2008, the patient consulted to our dermatology department for hard, indurated , painless nodules on her umbilicus. The patient said these lesions were present about one year and not admitted to any doctor for these lesions . On the same day, a punch biopsy from umbilical nodules was been performed and the histopathological result was metastasis of adenocarcinoma.



Sister Mary Joseph Dempsey (born in Julia Dempsey; 1856-1939) She was a surgical assistant of William J. Mayo at the Minnesota St. Mary's hospital between 1890-1915. Dr. Mayo has full confidence to his assistant and replied to a technical question about what to do in a specific situation like that: " I consult to Sister Joseph and agree her advice." ¹



Sister Mary Joseph

As a surgical assistant, one of her duties was to prepare abdomens of patients for surgery. During her duty, she noticed a sign which would be named as her name in future: Generally, there was an umbilical nodule in patients with advanced intraabdominal carcinoma. However, the term "Sister Mary Joseph Nodule" was not present in the literature until Hamilton Bailey described it on "Physical Signs in Clinical Surgery" on 11th edition in 1949, which is 10 years after her death.

DISCUSSION

57% of all umbilical tumours are benign.^{2,5} Of these, the most common encountered lesion is dermal nevus, less frequent lesions are fibroepithelial papillomas, epithelial inclusion cysts, seborrheic keratosis, dermatofibroms and polyps. Apart from these, omphalomesenteric duct congenital malformations, foreign bodies, hypertrophic scars, umbilical hernias umbilical nodule could be presented as umbilical mass³. Umbilical endometriosis which is a rare umbilical nodule cause could be diagnosed as it causes hemorrhage and tenderness and changes with menstrual cycle⁴

Primary malignant umbilical tumours (melanoma, basal cell carcinoma, squamous cell carcinoma, myocarcinoma, adenocarcinoma) constitutes only 17% of all malignant umbilical tumours. Adenocarcinoma and myosarcoms are thought to be originated from ectopic tissues like remnants of omphalomesenteric duct.

Metastatic umbilical tumours constitutes 83% of all malignant umbilical tumours and they are generally associated with adenocarcinoma histopathologically. Known origin sites for Sister Mary Joseph nodule are stomach (25%), ovary (12%)⁶, colorectal site (10%) and pancreas (7%) as our case^{7,8}; apart from these, gall bladder⁹, uterus, liver, endometrium, small intestine , fallopian tube, appendix, servix, penis, prostat¹⁰, breast, kidney and lung are the other reported sites.

As our case, the clinic importance of Sister Mary Joseph nodule is it is associated with advanced metastasized carcinoma. It has a poor prognosis and the treatment is generally only palliation ¹¹ Prognosis is rather poor.¹²

REFERENCES

- Hill M, O'Leary JP. Vignettes in medical history. Sister Mary Joseph and her node. Am Surg 1996;62:328-9.
- Piura B.Umbilical metastasis: Sister Mary Joseph's nodule.Harefuah 2006 Jul;145(7):505-9, 550.
- Khan AJ, Cook B. Metastatic carcinoma of umbilicus:"Sister Mary Joseph's nodule". Cutis 1997;60:297-8.
- Igawa HH, Ohura T, Sugihara T, Hosokawa M, Kawamura K, Kaneko Y. Umbilical endometriosis. Ann Plast Surg. 1992.Sep;29(3):266-8.
- Giner Galvañ V. Sister Mary Joseph's nodule. Its clinical significance and management. An Med Interna. 1999 Jul;16(7):365-70.
- Kolwijck E, Boss EA, van Altena AM, Beex LV, Massuger LF. Stage IV epithelial ovarian carcinoma in an 18 year old patient presenting with a Sister Mary Joseph's nodule and metastasis in both breasts: a case report and review of the literature. Gynecol Oncol. 2007 Dec;107(3):583-5. Epub 2007 Sep 27.
- Miyahara M, Hamanaka Y, Kawabata A, Sato Y, Tanaka A, Yamamoto A, Ueno T,Nishihara K, Suzuki T. Cutaneous metastases from pancreatic cancer. Int J Pancreatol. 1996 Oct;20(2):127-30.
- Hafez H.Cutaneous pancreatic metastasis: a case report and review of literature.Indian J Cancer. 2007 Jul-Sep;44(3):111-4.
- Jeon HM, Kim JS, Lee CD, Kim EK, Kim SN.Late development of umbilical metastasis after laparoscopiccholecystectomy for a gall bladder carcinoma. Oncol Rep. 1999 Mar-Apr;6(2):283-7
- Stanko C, Grandinetti L, Baldassano M, Mahmoodi M, Kantor GR. Epidermotropic metastatic prostate carcinoma presenting as an umbilical nodule-Sister Mary Joseph nodule.Am J Dermatopathol. 2007 Jun;29(3):290-2.
- Hoegler D. Radiotherapy for palliation of symptoms in incurable cancer.Curr Probl Cancer. 1997 May-Jun;21(3):129-83.
- Dubreuil A, Domp Martin A, Barjot P, et al. Umbilical metastasis or Sister Mary Joseph's nodule. Int J Dermatol 1998;37:7-13