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A rare case of Sister Joseph's nodule in carcinoma of colon diagnosed by fine needle aspiration cytology

(Un caso raro de nódulo de "Sister Joseph's" en carcinoma de colon diagnosticado mediante citología por aspiración con aguja fina)

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Abstract(english)

Umbilical skin metastasis is also known as sister joseph nodules. Its occurrence in carcinoma of the colon is considered to be rare. The finding of umbilical metastasis indicates a poorer prognosis for the patient and a less survival rate. The Sister Mary Joseph nodule can be mistaken for a number of cutaneous tumors that grow on the umbilicus. Histological/cytological assessments of all umbilical sores are obligatory, to decide its inclination and furthermore for the possible primary source.

Keywords(english)

Carcinoma, colon, cytology, nodule, umbilicus, sister joseph.

Resumen(español)

La metástasis cutánea umbilical también se conoce como nódulos de la hermana José. Su aparición en el carcinoma de colon se considera poco frecuente. El hallazgo de metástasis umbilical indica un peor pronóstico para el paciente y una menor tasa de supervivencia. El nódulo de la Hermana María José puede confundirse con diversos tumores cutáneos que crecen en el ombligo. Es fundamental realizar evaluaciones histológicas/citológicas de todas las úlceras umbilicales para determinar su inclinación y, además, determinar su posible origen primario.

Palabras clave(español)

Carcinoma, colon, citología, nódulo, ombligo, hermana José..

Introduction

Umbilical skin metastasis is also known as sister joseph nodules. Sister Mary Joseph Dempsey, a surgical assistant, published the first article on this metastatic nodule in 1928 [1]. These nodules usually occur in carcinoma of the stomach and ovary. Its occurrence in carcinoma of the colon is considered to

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be rare. Umbilical metastasis in colon cancer has been first described by Walshe in 1846[2]. A finding of umbilical metastasis indicates a poorer prognosis for the patient and a less survival rate. The present case report is about a rare finding of umbilical metastasis in a treated case of colon carcinoma.

Case report

A 61-year-old male, known case of Mucinous carcinoma of colon-PT4N2bMx treated with left hemicolectomy followed by transverse colectomy along with 12 cycles of adjuvant chemotherapy in 2019 and reversal of transverse colostomy with end-to-end anastomosis in the year 2020. Now in 2021 patient presented with complaints of bilateral leg swelling for 25 days which was insidious in onset and non-progressive in nature. On examination of the patient vitals were stable with per abdominal examination showing mild tenderness over the right hypochondrium. Midline laparotomy and colostomy scars were noted along with a solid swelling over the anterior abdominal wall.

Investigation: USG imaging of abdomen was done for the patient and did not reveal any significant abnormality. PET CT scan was done which showed mildly hypermetabolic circumferential mural thickening with maximum thickness measuring 10mm extending for a length of 2.5cm with luminal narrowing near the colorectal anastomosis site. Also, another segment of hypermetabolic circumferential mural thickening with maximum thickness measuring

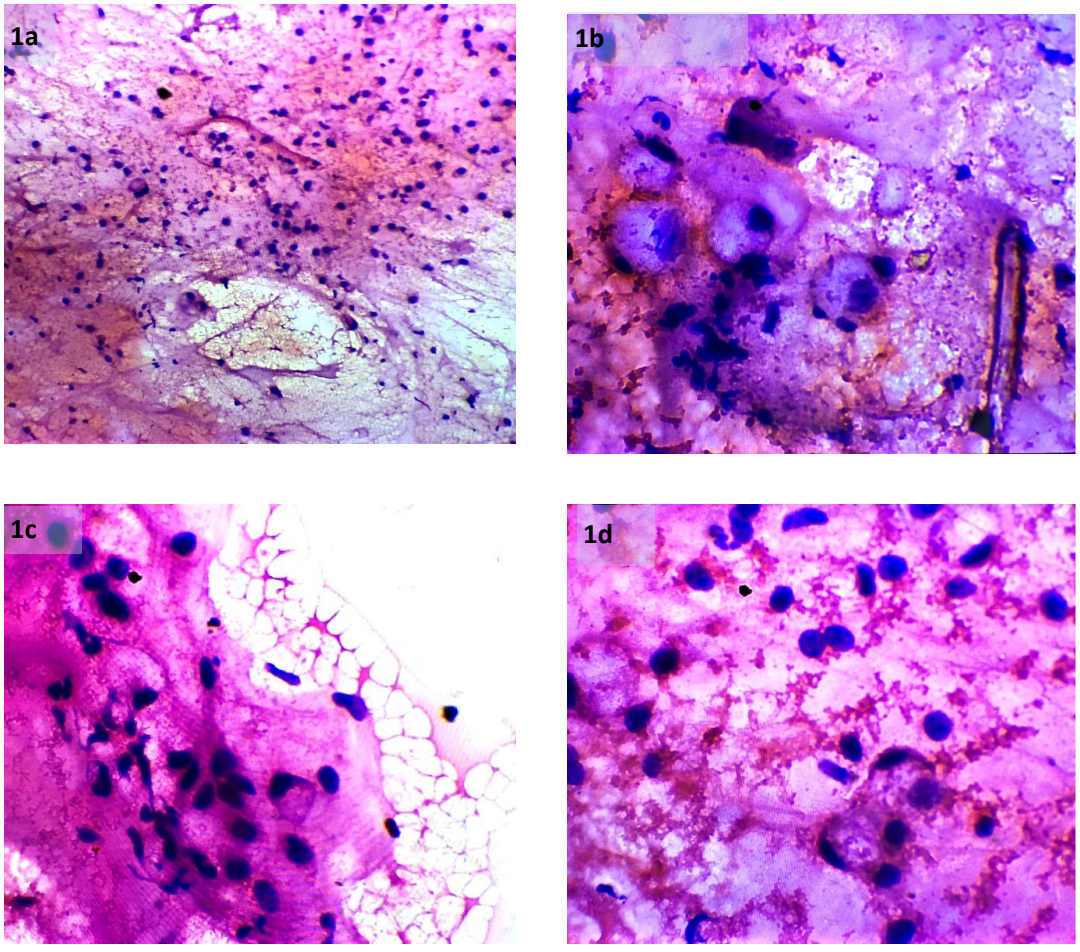

Figure 1. 1a: Cytology smears showing 4x view of atypical cells in a mucinous background**, 1b:**40x magnification view showing cells with signet ring cell features**, 1c&1d:** 10x magnification view showing atypical cells with hyperchromatic nuclei and few with signet ring like features.

10mm extending for a length of 5cm with luminal narrowing approximately 5cm proximal to the lesion noted in the anastomosis site.

Moderately hypermetabolic subaortic node measuring 11x9mm and faintly hypermetabolic left supraclavicular node measuring 12x6mm-Suspicious for Metastasis.

Faintly hypermetabolic stranding in the left lower anterior abdominal wall-? Inflammatory post-surgical changes, faintly hypermetabolic and enlarged bilateral inguinal lymph nodes-likely reactive, faintly hypermetabolic peritoneal stranding with soft tissue measuring 54x23mm in the left iliac region-? post-surgical change.

Fine-needle aspiration cytology of the patient's solid swelling over the anterior abdominal wall was ordered. A 5x3cm swelling on the anterior abdominal wall, just below the umbilicus, as well as midline laparotomy and colostomy scars were discovered on the abdomen.

FNAC findings. A fine needle aspiration cytology was done from the swelling over the anterior abdominal wall just below the umbilicus.

Aspirated Smears showed atypical cells, some cells with signet ring cells feature hyperchromatic nuclei in a mucinous background. Impression was given as Features are that of Malignancy possibly from the metastatic deposit of colon.

Discussion

The malignant metastatic umbilical nodule, more commonly referred to as the "Sister Joseph Nodule," accounts for only 1% to 3% of all abdominal and pelvic carcinomas.[3] The umbilicus is an easy target for metastasis due to its variations in vascularity and developmental anomalies. A carcinoma can spread to the umbilicus in a number of ways, including through the umbilical vein's portal venous system, lymph nodes, dermal lymphatics, and embolization through the arterial system.[4] Histological/cytological assessments of all umbilical sores are obligatory, to decide its inclination and furthermore for the possible primary source, on the off chance that it's analyzed to be a metastatic one [5] .Umbilical nodules are intriguing and can be benign or malignant and these malignant growths can be primary or metastatic. Benign causes like endometriosis, melanocytic nevi, fibroepithelial papillomas, keloid, myxoma, abscess, umbilical hernia, dermatofibroma, seborrheic keratosis, pilonidal sinus.[6][7]

In conclusion the Sister Mary Joseph nodule can be mistaken for a number of cutaneous tumors that grow on the umbilicus. The differences found in the clinical and cytological examinations in this study aid in diagnosis. For further treatment, the patient was taken to a palliative care center.

Conflict of interest

None to declare.

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