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CASE REPORT PEER REVIEWED | OPEN ACCESS

Sister Mary Joseph's nodule revealing an ovarian adenocarcinoma: A case report

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ABSTRACT

Introduction: Sister Mary Joseph nodule is an eponymous term for a malignant metastatic umbilical nodule. It is a rare but important physical finding because it is indicative of advanced malignancy. The primary tumor is usually an adenocarcinoma, rarely a squamous cell carcinoma, melanoma, or sarcoma.

Case Report: We report the clinical case of a 64-year-old woman with metastatic ovarian adenocarcinoma and umbilical cutaneous metastasis. The diagnosis was established upon the umbilical node biopsy in April 2020, after the patient presented with an abdominal distension and respiratory difficulties.

Conclusion: Umbilical skin metastases are rare, and they are associated with advanced metastatic disease and a very poor prognosis. Through this work we try to clarify the mechanisms and the prognosis of this rare manifestation, and put the point on the importance of an early diagnosis.

Keywords: Ovarian adenocarcinoma, Sister Mary Joseph nodule, Umbilical metastasis

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INTRODUCTION

Sister Mary Joseph nodule is an eponymous term for a malignant metastatic umbilical nodule. It is a rare but important physical finding because it is indicative of advanced malignancy [1]. It was described by Sister Marie Joseph Dempsey, an operating nurse at William J. Mayo in Rochester, Minnesota. The primary tumor is usually an adenocarcinoma, rarely a squamous cell carcinoma, melanoma, or sarcoma. It often occurs in a patient with a known cancer or reveals it. It is a very rare pathology and poses a double diagnostic and prognostic problem because cutaneous umbilical metastases of visceral tumors are not frequent [2].

We report a case of an umbilical skin metastasis revealing an ovarian adenocarcinoma in a patient admitted for abdominal distension causing respiratory discomfort at the Gynecology Department (department number 8) of the CHU Ibn Rochd of Casablanca, Morocco.

CASE REPORT

An 84-year-old patient, mother of two children born by vaginal delivery, diabetic on insulin for 20 years, hypertensive on renin angiotensin antagonist,

who consulted for abdominal distension of progressive installation evolving since 08 months causing respiratory discomfort. The clinical examination objectified a patient with alteration of the general state, a distended abdomen with collateral venous circulation and declive dullness. There was also a painless subcutaneous umbilical nodule of 1 cm (Figure 1). The histological and immunohistochemical study of the biopsy was in favor of a metastasis of an adenocarcinoma of ovarian origin.

Moreover, the radiological work-up revealed an umbilical nodule associated with a solidocystic abdominal-pelvic mass with multiple partitions of probable ovarian origin with peritoneal carcinosis (Figure 2). The tumor markers requested: CA125 were elevated to 256 IU/L. The patient was presented at a multidisciplinary consultation meeting (RCP) with a decision to undergo palliative chemotherapy.

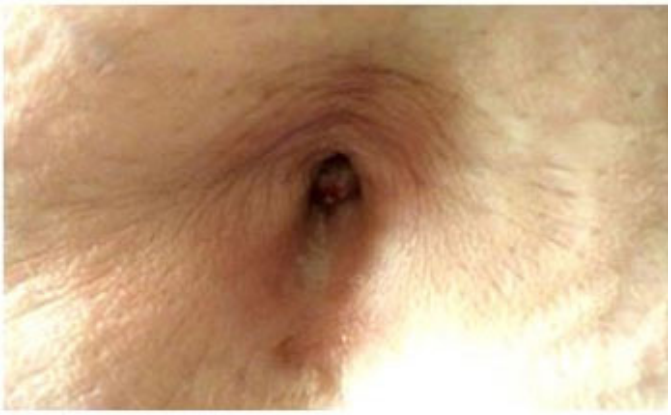

Figure 1: Macroscopic view of a nodule of Sister Mary Joseph (umbilicus).

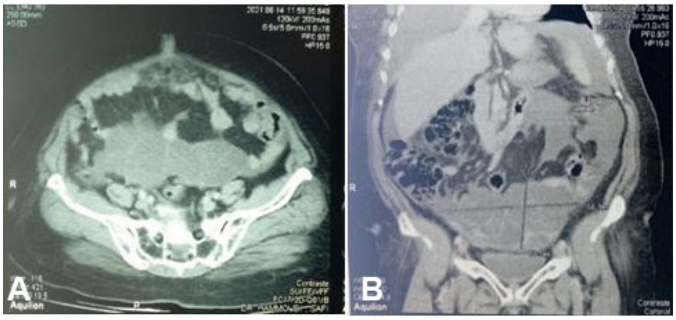

Figure 2: Abdominal-pelvic CT scan showing the subcutaneous nodule (A: transverse section) and the ovarian solidocystic mass (B: coronal section).

DISCUSSION

The Sister Mary Joseph nodule is a palpable nodule of the umbilicus most often secondary to a metastasis of an abdomino-pelvic cancer [2]. Its incidence is low, since it is estimated that 1–3% of patients with abdomino-pelvic neoplasia may have a Sister Mary Joseph nodule [3]. The discovery of this nodule poses the diagnostic and prognostic problem because the search for the primary tumor is not always easy [4].

The most common histological types of umbilical metastases are adenocarcinomas (90%) [5], but it may also (rarely) be squamous cell carcinoma or undifferentiated cancer [6]. The pathophysiology of the Sister Mary Joseph nodule is still incompletely elucidated. Indeed, there are four possible routes of dissemination of neoplastic cells to the umbilicus which are: hematogenous dissemination, extension from the hepatic round ligament to the middle umbilical ligament, retrograde lymphatic reflux, and contiguous dissemination from the anterior surface of the peritoneum via the dermal vessels of the umbilicus, which explains the appearance of the Sister Mary Joseph nodule in the advanced stages of deep cancers often accompanied by peritoneal carcinosis [5]. This nodule presents as a rounded, irregular, indurated swelling, often painful and oozing, sometimes pruritic. It may be of different colors: white, purple, red, brown. It usually measures between 5 and 20 mm in diameter, but can reach up to 10 cm [7]. The discovery of such a nodule must imperatively lead to an abdominal-pelvic computed tomography (CT) scan and a biopsy of the lesion in order to obtain an anatomopathological diagnosis [8]. The differential diagnosis is with benign tumors (endometriosis, melanocytic nevus, dermatofibroma, uracic cyst, seborrheic keratosis, pyogenic granuloma, omphalitis, keloid, foreign body, abscess, or even hernia) and malignant (melanoma, basal cell carcinoma, squamous cell carcinoma, myosarcoma, primary adenocarcinoma) [9]. The presence of Sister Mary Joseph nodules usually means advanced metastatic cancer with a poor prognosis. This can be explained by the late discovery of the tumor pathology in resource-limited countries on the one hand, and on the other hand the discrete character of the nodule which can be trivialized [5]. The discovery of a metastatic nodule at the umbilical site almost certainly establishes the non-operable nature of the patient. From the point of view of prognosis, all authors agree that the presence of the Sister Mary Joseph nodule remains a pejorative element. The average survival at the time of diagnosis is estimated at 11 months [5]. The evolution of our patient was marked by the occurrence of a death after four months of diagnosis of the pathology.

CONCLUSION

An umbilical lesion must be taken seriously by the practitioner, as it represents a neoplasm in two-thirds of cases, being either a primary cancer or a metastatic disease. The Sister Mary Joseph nodule is a rare umbilical metastatic lesion. Its discovery should lead to an abdomino-pelvic CT scan and skin biopsy. This nodule is characterized by its late onset and has been associated with a poor prognosis.

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Author Contributions

Faizi Issam – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Sami Zineb – Design of the work, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Hlaibi Omnia – Acquisition of data, Analysis of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Boufettal Houssin – Interpretation of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Mahdaoui Sakher – Interpretation of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

Samouh Naima – Interpretation of data, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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Conflict of Interest

Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

ABOUT THE AUTHOR

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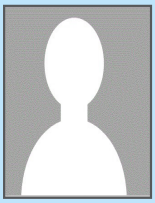

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