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Sister Marie Joseph Nodule in a Polypathological Patient: Study of an Observation at the Dermatology Hospital of Bamako (Mali)

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Abstract **Case Report**

Summary*:** Sister Mary Joseph nodule is a metastatic localization with a generally abdominal-pelvic origin and secondary to a primary adenocarcinoma in 90% of cases. We report an observation of Sister Mary Joseph nodule revealing a primary adenocarcinoma of the colon in a young adult with multiple pathologies. ***Observation*:** A 57-year-old patient, followed for hepatitis B, HIV1+, and benefiting from a therapeutic regimen (Tenofovir+Lamivudine+Dolutegravir) since 2019 and later a hyperthyroidism of incidental discovery. For one year he has had a firm nodular ulceration measuring 07 cm in its longest axis, with a reddish-pink appearance and whitish deposits, a haemorrhagic ooze on contact, and located at the umbilicus. Also, a tongue laden with whitish coatings that are easily removed with a tongue depressor and the inner surface of the cheeks and palate are erythematous. Bilateral exophthalmos abolished vocal vibrations in both lung bases; two hard left inguinal adenopathies adhering to the deep plane, painless, 3 cm in diameter each. He also described episodes of alternating constipation and diarrhoea accompanied by abdominal pain, coughing, physical asthenia and weight loss (40% loss in 2 years). Anatomopathology of a fragment of the nodule revealed a well-differentiated adenocarcinoma whose tumour cells were of colorectal origin and expressed CK20 and CK8/18. Colonoscopy revealed a multilobed polyploid tumour of the ascending colon and histology concluded that it was a liberkuhnian adenocarcinoma. A chest CT scan revealed pulmonary and abdominal-pelvic metastases and the diagnosis of a Sister Mary Joseph nodule revealing a colonic and metastatic adenocarcinoma was made. The patient was referred to the oncology department for palliative care after the surgical opinion. ***Conclusion: The nodule of Sister Marie Joseph is a cutaneous metastasis revealing a cancer of the abdominopelvic sphere. This rare and characteristic tumour deserves to be known by practitioners because its presence is always associated with a poor prognosis. The presence of immunosuppression in addition to certain serious diseases makes its prognosis worse.

Keywords: Nodule, Sister Marie Joseph, Poly pathology.

INTRODUCTION

The Sister Mary Joseph nodule is a metastatic localization with a generally abdominal-pelvic origin and secondary to an adenocarcinomaprimitive in 90% of cases [1, 2]. It is sometimes the first sign of the primary tumour [3], but very often occurs long after the tumour has been diagnosed [4]. It accounts for 1-3% of all abdomino-pelvic neoplasia and 30% of umbilical tumours. Its presence is a sign of poor prognosis [5].

We report an observation of a Sister Mary Joseph nodule secondary to a primary adenocarcinoma of the colon in a young poly-pathological adult.

OBSERVATION

A 57-year-old patient, resident in Bamako, pharmacist by profession, divorced. He was being followed for Hepatitis B, HIV1+, treated with Tenofovir+Lamivudine+Dolutegravir since 2019 and newly discovered hyperthyroidism on Neo-mercazole.

He has had a firm nodule of spontaneous onset, ulcerating and progressively evolving with bloody secretion for 1 year. He also describes episodes of alternating constipation and diarrhoea accompanied by abdominal pain and cough.

On examination, the general condition was altered with a weight of 47kg, height of 171m, BMI:

16kg/m, pulse of 103btt/mn, FR: 32cycles/mn, BP: 97/72 mmhg, physical asthenia and weight loss (40% of weight in 2 years).

On the skin, a nodular ulceration measuring 07 cm in its longest axis, red to pink with whitish deposits in places, oozing and haemorrhagic on contact, and located at the level of the umbilicus (image 1). In the oral mucosa, we found a loaded tongue with whitish coatings that could be easily removed with a tongue depressor, and an erythematous inner surface of the cheeks and palate. The dander was unremarkable. Elsewhere there was bilateral exophthalmos, abolished vocal vibrations in the lower 1/3 of both lung bases; two hard left inguinal adenopathies adherent to the deep plane, 3cm in diameter, tingling of the lower limbs.

The hypothesis of a Sister Mary Joseph nodule was evoked, the anatomopathological examination of the skin biopsy specimen concluded to a well-differentiated adenocarcinoma (image 2) whose tumour cells express CK20 and CK8/18, immunohistochemical profile orienting towards a colorectal origin. Colonoscopy revealed a multilobed polyploid tumour in the ascending colon and the histology of the biopsy specimen was consistent with a Liberkuhnian adenocarcinoma of the colon (image 3). Chest CT scan showed lung metastases and homogeneous hepatomegaly; fibrosis F2/F3/(A2); viral load: 5000u/ml; TSHus: 0.005uUL; albumin: 21g/l. The diagnosis of Sister Mary Joseph nodule revealing a metastatic colonic adenocarcinoma was retained. The patient was referred to the oncology department for palliative care after the surgical opinion on the management of the primary tumour. Death occurred after 6 months of evolution.

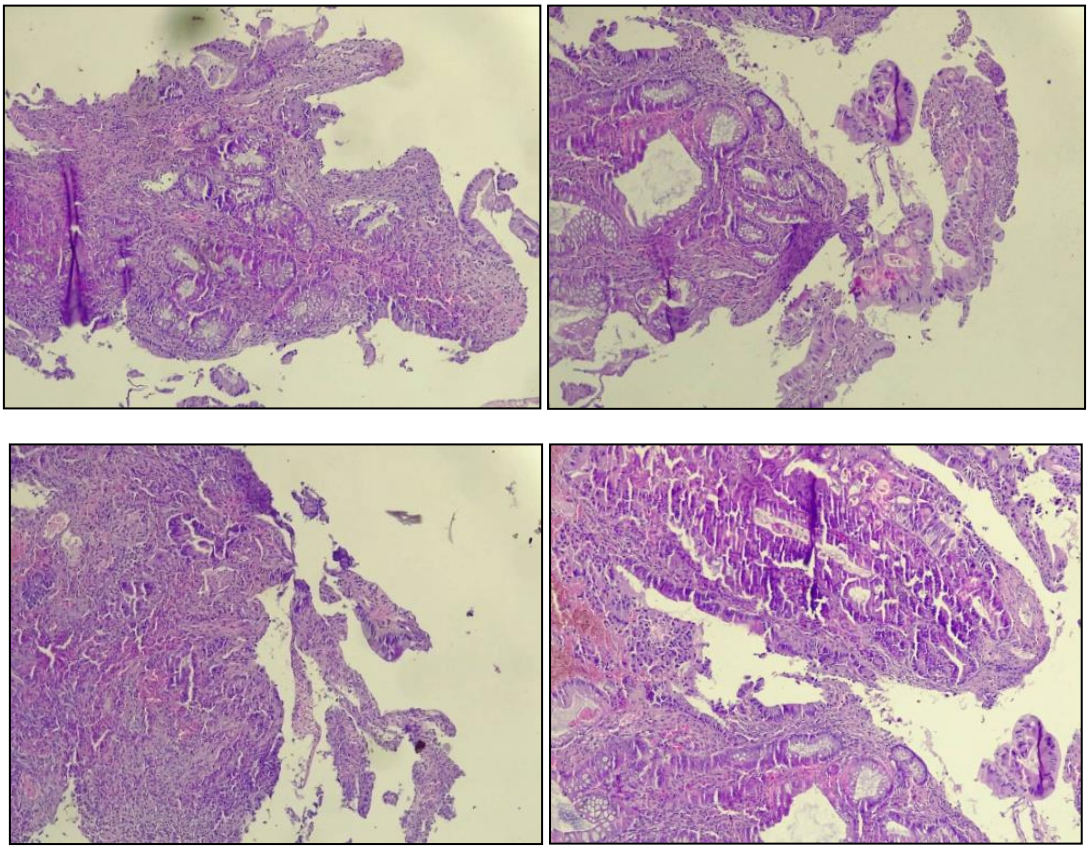

Image: Tumour proliferation made of tubes and polyadenoid structures. They consist of atypical columnar cells. The stroma is haemorrhagic, inflammatory and necrotic

DISCUSSION

The Sister Mary Joseph nodule is the umbilical metastasis of a cancer of the abdominopelvic cavity that has been poorly described in the literature [1, 2]. Its presence is a sign of poor prognosis, as the average survival after diagnosis does not usually exceed 11 months [3]. This nodule, which is commonplace for many practitioners, is in fact indicative of the inoperability of the underlying tumour [6].

In our case, it is a metastasis of an adenocarcinoma of colonic origin which infiltrates the umbilical region in the form of an ulcerated nodule with an irregular and serosanguinous border. This occurs in a poly-pathological patient suffering from both viral hepatitis B and hyperthyroidism and HIV immunodepression.

The clinical presentation of this nodule can be confused with other tumour pathologies, in particular

pyogenic granuloma, the clinical appearance of which is that of a painless, polypoid, pedunculated or sessile erythematous nodule of cutaneous or mucosal origin [8, 9]. It is easily hemorrhagic on contact or may ulcerate and become covered with blackish crusts in places [10].

Achromic melanomas constitute 2-8% of melanomas and are particularly difficult to diagnose because they do not fulfil the ABCDE criteria of the Ugly Duckling. Achromic melanomas are exceptional in black skin and usually occur in very fair skinned individuals with phototype I or II [11].

However, pathological examination is necessary to differentiate.

Cutaneous endometriosis usually presents as nodules most often in the umbilicus and inguinal region [12]. This hypothesis was dismissed as a female pathology, but the diagnosis was to be made only after pathological examination of the surgical specimen.

Primary cutaneous squamous cell carcinoma is a differential diagnosis that shares similar clinical and histological features, but the difference is mainly in the immunostaining of the tumour cells [13].

Immunosuppression is an important factor in the occurrence of primary cancer. However, the multilobed polyploid character on endoscopic examination, the age of the patient (less than 60 years) and the history of alternating constipation, diarrhoea and intermittent abdominal pain may lead to the suspicion of degenerative polyposis coli.

This imposes the search for other specific skin signs in Peuths-Jengher syndrome, Gardner syndrome as well as for mutations of genes involved in the previous syndromes and familial polyposis. In our patient, there were no other skin signs specific to these syndromes and the technical platform in our country does not allow the search for mutated genes.

CONCLUSION

Sister Mary Joseph's nodule is a skin metastasis revealing a cancer of the abdominopelvic sphere. The primary tumour is usually digestive (gastric or colonic) or genital.

This rare and clinically characteristic tumour is associated with a poor prognosis, especially in the context of several serious diseases. It deserves to be known by practitioners, as it is easily accessible on clinical examination and its recognition as a secondary lesion of a solid tumour may avoid a delay in the management of the underlying neoplasia.

BIBLIOGRAPHY

1. Badri, T., Fazaa, B., Zermani, R., Sfar, R., Jilani, S. B., & Kamoun, M. R. (2005, February). Tumeur de l'ombilic. In *Annales de dermatologie et de vénéréologie* (Vol. 132, No. 1, pp. 55-57). Elsevier Masson.
2. Shiraishi, K., Marcand, M., & Muller, S. (2018). Nodule of Sister Marie-Joseph: when the navel reveals cancer. *French Annals of Emergency Medicine*, *8* (5), 347-347.
3. Gabriele, R., Borghese, M., Conte, M., & Basso, L. (2004). Sister Mary Joseph's nodule as a first sign of cancer of the cecum: report of a case. *Diseases of the colon & rectum*, *47*, 115-117. https://journals.lww.com/dcrjournal/toc/2004/47010
4. Bahram, S., & April, D. (2007). Umbilical metastasis from prostate carcinoma (Sister Mary Joseph's nodule): a case report and review of literature. *J Cutan Pathol*, 34(7), 581-3.
5. Mehdi, K., Youssef, C., & Chadli, D. (2011). Nodule de Sœur Mary Joseph révelant un adénocarcinome du pancréas. *Tunisie Medicale*, 89 (10), 790-791.
6. Dubreuil, A., Dompmartin, A., & Barjot, P. (1998). Umbilical metastasis or Sister Mary Joseph's nodule. *Int J Dermatol*, 37, 7—131.
7. Karima, K., Ernest, B., Sofia, J., Fatima, Z. F. A., Hekmat, C., & Moulay A. M. (2020). Nodule de Sœur Marie-Joseph révélant unadénocarcinome gastrique: A propos d'un cas. *In J Med Rev case Rep.*, 4(10), 31-33.
8. Angelopoulos, A. P. (1971). Pyogenic granuloma of the oral cavity: statistical analysis of its clinical features. *J Oral Surg*, 29, 840–7.
9. Sheth, S. N., Gomez, C., & Josephson, G. (2001). Pathological case of the mouth. *Arch PediatrAdolesc Med*, 155(9), 1065–6.
10. Muñoz, M., Monje, F., del Hoyo, J. A., & Martín-Granizo, R. (1998). Oral angiosarcoma misdiagnosed as a pyogenic granuloma. *Journal of oral and maxillofacial surgery*, *56*(4), 488-491.
11. Jaguar, G. C., Prado, J. D., Soares, F., Alves, F. A., & Osório, C. A. T. (2006). Gingival metastasis from non-small cell undifferentiated carcinoma of the lung mimicking a pyogenic granuloma. *Oral Oncology Extra*, *42*(1), 36-39.
12. Boufettal, H., Zekri, H., Majdi, F., Noun, M., Hermas, S., Samouh, N., ... & Zamiati, S. (2009, December). Endométriose ombilicale primitive. In *Annales de Dermatologie et de Vénéréologie* (Vol. 136, No. 12, pp. 941-943). Elsevier Masson.
13. Mateus, C. (2014). Carcinomes épidermoïdes cutanés. *Rev Prat.*, 64(1), 45-52.