ISSN: 2755-0206

Journal of Pathology Research Reviews & Reports

SCIENTIFIC Research and Community

Research Article

Open Access

Melanocytics Tumors on Black Skin: About 2 Cases of Anal Location

Niang D[1, 2, 3*], Thiam I [2,4,5], Seck B [2,3,7], Manyacka P [1,3,6], Diallo M [1, 2, 5,7], Konate I[1,3, 5] and Dial C [2,4,8]

[1]Gaston BERGER University Health Sciences Unit

[2]Laboratory of cytology and pathological anatomy

[3]Regional Hospital Center of Saint-Louis

[4]Cheikh Anta DIOP University

[5]Aristide LE DANTEC Hospital

[6]Surgical Department

[7]Dermatology Department

[8]Idrissa Pouye General Hospital

ABSTRACT

In black skin, the epidemiology of anal melanocytic tumors is little studied and is generally based on reported cases. Anal localization is characterized by its rarity, and its non-consensual management. In this study we describe and discuss the anatomopathological aspects which led to the fortuitous discovery of a case of nevus and a case of melanoma of anal location. The cases involved samples taken from a 30-year-old female and a 75-year-old male. Both examinations concerned surgical pieces received fixed. Histological and immunohistochemical examination was performed for both observations. In the case of the nevus, the histological appearance was misleading and difficult, initially evoking a melanoma. The diagnosis of the melanoma case was easier and confirmed by a positive HMB45 staining. In proctology, melanocytic tumors are rare with a variable and nonspecific clinical presentation. Melanoma on black skin occurs in locations that are not photo-exposed mucous membranes with a poor prognosis.

***Corresponding author**

Dibor NIANG, Specialist in Anatomic and pathological Cytology Gaston BERGER University Health Science Research and Training Unit Bat UGBII BP: 234 Saint-Louis Senegal. E-mail: dibor.niang@ugb.edu.sn

Received: April 23, 2022; **Accepted:** April 27, 2022; **Published:** May 04, 2022

Keywords: Anal, Melanoma, Nevus, Black Skin, Melanocytic

Introduction

Melanocytic tumors are conditions that develop from the pigmentary system. Their malignant forms are called melanomas and their benign forms nevi. In black skin, the epidemiology of anal melanocytic tumors is not well studied and is generally based on reported cases. For the melanoma, anal localization is characterized by its rarity and its non-consensual management and a poor prognosis [1]. Their frequency is higher in Caucasian subjects than in black where it is really low due to photoprotection induced by melanin. They have a very variable incidence on a planetary scale: the sun, the ethnic characteristics and genetics are involved in their development. Skin cancers on white skin represent about 40% of all cancers, while on black skin they are equivalent to about 2% [2]. We report and discuss about 2 observations of anal melanocytic lesions by referring to the literature.

Materials and Method

This is a retrospective study of the archived files from the Pathological Anatomy Laboratory. 1 case of nevus and 1 case of anal melanoma are found out of 4319 analyzed files for a period of 4 years. Histological examination was performed on 10% buffered formalin-fixed tissue and immunohistochemistry performed manually. The specimens were fully embedded and examined with HE staining. The immunohistchemistery study was performed with the S100, MELAN A, Ki67 and HMB45 antibodies.

Observation N ° 1

A 30 years old female was operated for a wart anal lesion. The surgical specimen measured 1 cm completely covered with skin without ulceration. The cut sections were brownish and the deep limit irregular. Microscopic examination shows a surface coating consists of hyperpygmented epiderm. There was no junctional abnormality. The deep dermis is the seat of a proliferation of cells with monomorphic rounded nuclei, sometimes nucleolated,

arranged in bundles or cords diffusing into the deep dermis. Their cytoplasm is punctuated in places with brownish melanocytic-like deposits (Figure 1). This proliferation infiltrates the resection limit. These fusiform and infiltrative aspects raised questions about the benign nature of the lesion, however there was no clear atypia or mitosis (Figure 2). Immunostaining was positive for HMB45 MELAN A and PS100 proving the melanocytic nature of cell proliferation with a Ki67 index very low confirming the diagnosis of common nevus. The evolution was favorable without recurrence.

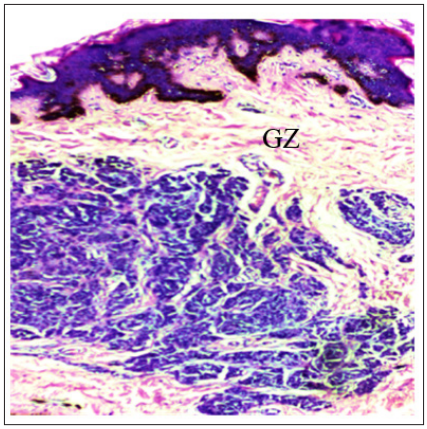

Figure 1: Photomicrography of nevus lesion at low magnification. the epidermis is hyperpigmented. Superficial dermis was regular showing a Grenz zone (GZ) over the dermal cell proliferation in deph.

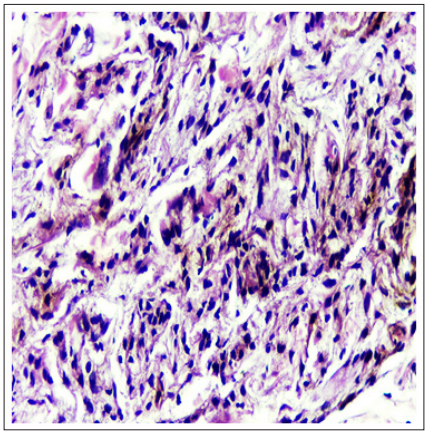

Figure 2: This photomicrography shows pseudo-infiltrating appearance + rare melanin pigments deep inside the lesion of nevus raising suspicion of a malignant lesion (Magnification x 20).

Observation N°2

We received a sample from a 75-year-old male patient in the laboratory in whom the clinical examination showed a pedunculated anal mass of chronic evolution suggestive of hemorrhoidal thrombosis. Macroscopically the surgical specimen measured 4.7 x 3.5 x 2.5 cm with ulcerated surface. The surface cross-sections were blackish, heterogeneous, lobulated and hemorrhagic (Figure 3). Histological examination found an infiltrative tumor proliferation, ulcerated on the surface covered with a fibrino-leukocyte layer. The tumor cells were melanocytic, of diffuse architecture and are in contact with foci of necrosis. Cell nuclei are rounded, bulky, with dusty, with prominent nucleolus. Many melanistic brownish deposits were found within the tumor (Figure 4). Immunohistochemical examination confirmed the melanocytic nature of the lesion with the expression of HMB45 S100 and MELAN A markers (Figure 5). In the evolution multiple metastases appeared causing the death of the patient 2 months postoperative.

Figure 3: Macroscopic aspect of the operative part which was blackish corresponding to the melanoma.

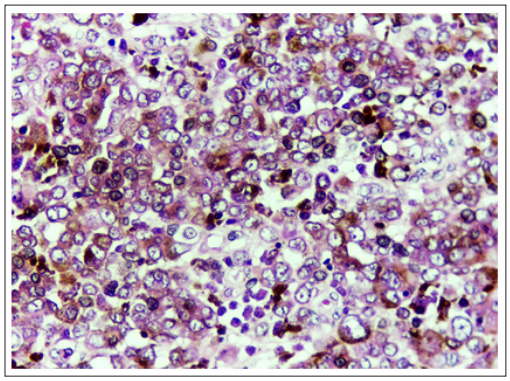

Figure 4: Photomicrography which was at high magnification of anal melanoma. Cell nuclei are rounded, bulky, with dusty, with prominent nucleolus.

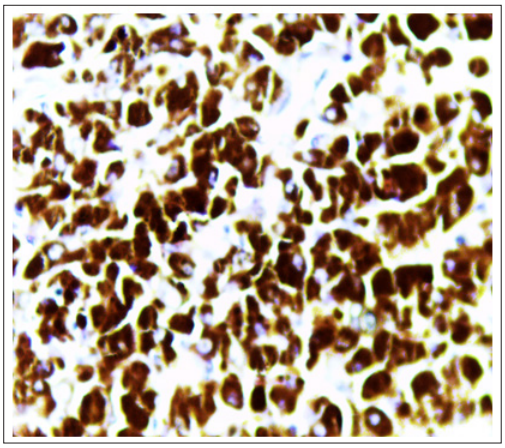

Figure 5: Photomicrography corresponding neoplastic melanocytic tumor cells Positive marking tumor cells by the HMB45 antibody (IHC Magnification x 40).

Discussion

Benign melanocytic nevi of the anal canal are exceptional here are no data on incidence of these lesions [1]. Globally, the nevus incidence is variable according to age 1% of newborns with a peak at age 15 rare after age 60. In black skin the average number detected was 8.3 per patient and more lesions are on the palms and soles. The mean size of nevi was 5.86 mm and the usual histologic pattern seen in plantar-palmar lesions was that of lentigo simplex [3]. For anal location the lesion is intradermal like our case or purely junctional. Naturally mitoses or architectural disorder

are not found. Usually the patients are adult [1]. The reported prevalence of nevus-associated melanoma varies substantially and in the study of Pampena and coll 29.1% of melanomas arose from a preexisting nevus and 70.9% de novo [4].

On black skin, 70 to 90% of melanoma are located on non-photo-exposed areas in acral topography [1-6]. Anorectal melanoma observed in our patient is a rare condition that accounts for 0.3% to 3% of melanomas and 1% to 3% of anorectal tumors [7]. It is more frequent among whites, during the fifth or sixth decades of life, women were more commonly affected than men [8, 9]. The anorectal melanoma is associated with extremely poor prognosis with all surgical approaches achieving a 5-year survival rate of less than 20% [10]. This was the situation of our patient who died at 2 months following metastases. Prognosis depends on the depth of invasion, duration of symptoms, inguinal lymph node involvement, presence of distant metastasis, tumor stage and the presence of amelanotic melanoma [11, 12]. Age, sex, and race were unassociated with survival [9].

On black skin the pejorative prognosis of melanomas seems to be linked to the particular semiology which delays the diagnosis and systematically worsens it. Mutations in the MC1R (Melanocortin 1 Receptor) gene have been suspected in the genesis [6].

Conclusion

In proctology, melanocytic tumors are rare with a variable and unspecific clinical presentation leading to an unexpected diagnosis. The epidemiological characteristics of melanocytic tumors on black skin populations remain little studied and anal localization is rare.

References

1. Niang S (2011) and all: The traps of melanoma on black skin https://francais.medscape.com/voirarticle/3328299
2. C Derancourt (2017) Cutaneous cancers on black skin Interactive updates – Black skin. Therapeutic realities in Dermato-Venerology.
3. Pampena R, Kyrgidis A, Lallas A, Moscarella E, Argenziano G, et al. (2017) A meta-analysis of nevus-associated melanoma: Prevalence and practical implications. Journal of the American Academy of Dermatology 77: 938-945.
4. Val-Bernal JF, Mayorga M, Val D (2016) Incidental Melanocytic Nevi in Hemorrhoidectomy Specimens. Am J Dermatopathol 38: 278-82.
5. Diomande MI, Effi AB, Honde M, F D'Horpock, K Koffi, et al. (1999) Malignant melanoma in the Ivory Coast. Epidemiologic and histo-prognostic aspects. Report of 195 cases. Clinical and Experimental Pathology 47: 92-95.
6. Malalaniaina A, Lovaso T, Mamisoa RI, Malala R, Soavina, RL, et al. (2019). Skin cancers in Madagascar: where do we stand? The Pan African Medical Journal 34: 167-167.
7. Stefanou A, Nalamati SP (2011) Anorectal melanoma. Clin Colon Rectal Surg. 24: 171–176.
8. Weinstock MA (1993) Epidemiology and prognosis of anorectal melanoma. Gastroenterology 104: 174-178.
9. Giulia Malaguarnera, Roberto Madeddu, Vito Emanuele Catania, Gaetano Bertino, Luca Morelli, et al. (2018) Anorectal mucosal melanoma. Oncotarget. 9: 8785-8800.
10. Coleman WP, Gately LE, Krementz AB, Reed RJ, Krementz, et al. (1980) Nevi, lentigines, and melanomas in blacks. Archives of Dermatology 116: 548-551.
11. Korsaga-Somé N, Zongo N, Ouangré E, Tapsoba P, Ouédraogo MS, et al. (2015) Aspects épidémiologique, clinique et anatomopathologique du mélanome CHU Yalgado Ouédraogo de Ouagadougou (Burkina Faso). The Pan African Medical Journal 20: 220
12. Row D, Weiser MR (2009) Anorectal Melanoma. Clin Colon Rectal Surg. 22: 20-26.