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Case Report Article

Intersecting paths: A rare case report of malignant melanoma in a patient with body dysmorphic disorder

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Abstract

Background: Body dysmorphic disorder (BDD) characterized by excessive and persistent preoccupation with perceived defects or flaws in appearance and has a prevalence of 1.7-2.9%. It is a disorder with a relatively unclear etiology.

Case presentation: A 36-year-old unmarried female presented to the surgery department with a self-inflicted lesion on her right ankle. The patient underwent fine needle aspiration cytology, and later, a wide local excision of the lesion was done. The final histological diagnosis of malignant melanoma was established. On careful psychiatric evaluation, the patient had an excessive and persistent preoccupation with her appearance, which caused severe psychological and social morbidity and drove her to her actions. Thus, the final diagnosis of body dysmorphic disorder (DSM V) was established. The patient was put on Fluoxetine and cognitive behavioral therapy.

Conclusion: Given the significantly reduced functionality and quality of life, BDD should be recognized and accurately diagnosed.

Keywords: Body Dysmorphic Disorder, Melanoma, Fine Needle Aspiration, Cognitive Behaviour Therapy, India

Background

Body dysmorphic disorder (BDD) characterized by excessive and persistent preoccupation with perceived defects or flaws in appearance and has a prevalence of 1.7-2.9% [1-2]. Enrico Morselli, an Italian doctor who coined the term "dysmorphophobia" for this condition, provided this moving explanation in 1891: “The dysmorphophobic patient is miserable; in the middle of his daily routines, conversations, reading and meals, in fact everywhere and at any time, is overcome by the fear of deformity... which may reach a very; painful intensity, even to the point of weeping and desperation" [3]. Recently, it has been included in the spectrum of Obsessive-Compulsive and Related Disorders under the Diagnostic and Statistical Manual of Mental Disorders (DSM-V) [4].

BDD is associated with various other psychiatric disorders, including stress, anxiety, mood disorders, and depression [5]. Patients with common skin diseases, including acne, atopic dermatitis, psoriasis, and bullous diseases, also had an 11-fold higher chance of having BDD symptoms than the normal population [6]. Moreover, BDD is also associated with the body image disturbance in cases of various cancers, including breast cancer, skin cancer, etc. Such patients suffered from negative body image arising from both the lesion itself and the consequences of the surgery on their image [6, 7].

Here we present a case of a 36-year-old lady with body dysmorphic disorder and malignant melanoma over her right ankle.

Case presentation

A 36-year-old unmarried female and a hairdresser by profession presented to the surgery department of Jorhat Medical College and Hospital, Assam, India with a self-inflicted lesion on her right ankle in October 2022. On examination, the lesion was 3 x 0.5 cm in size and had a firm consistency. The main complaint was the patient had noticed the painless lesion for the last 3 months. The lesion was gradually increasing in size and a blackish discoloration. Fine needle aspiration cytology (FNAC) was done.

The smears were cellular, with the presence of round-to-spindle cells with moderate cytoplasm and round-to-oval nuclei with prominent nucleoli. Occasional cells with highly pleomorphic nuclei were also noted (Figure 1). A differential

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diagnosis of either a malignant spindle cell neoplasm or a malignant melanoma was suggested.

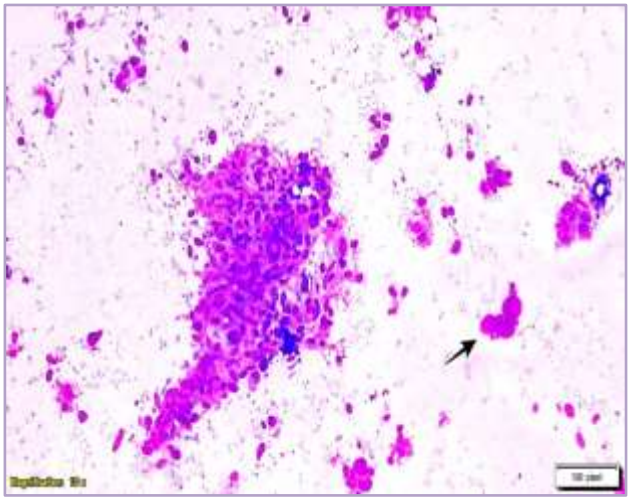

Figure 1: Cellular cluster with round to oval cells. Occasional cells show highly pleomorphic nuclei (black arrow) (MGG, 10X)

The patient underwent wide local excision of the lesion with a margin of 1 cm as a malignant lesion was suspected on FNAC and since malignant melanoma was a differential diagnosis in the case. The biopsy was sent to the Department of Pathology at our institute. On gross examination, the lesion was skin-covered and nodular, measuring 2.5 x 1 cm, with areas of blackish pigmentation. On microscopic examination, the epidermis and upper dermis showed the presence of tumor cells present in sheets with pleomorphic nuclei and prominent nucleoli. Tumor thickness was estimated at 1 mm. Melanin pigment deposition is present. No areas of ulceration were noted and all the resected margins were free of tumor. (Figure 2). No lymph nodes were sent in this case. Thus, a final diagnosis of Malignant Melanoma was given. A pathological stage of pT1b was given based on the histological findings. On radiological and clinical evaluation, no significant lymphadenopathy was noted.

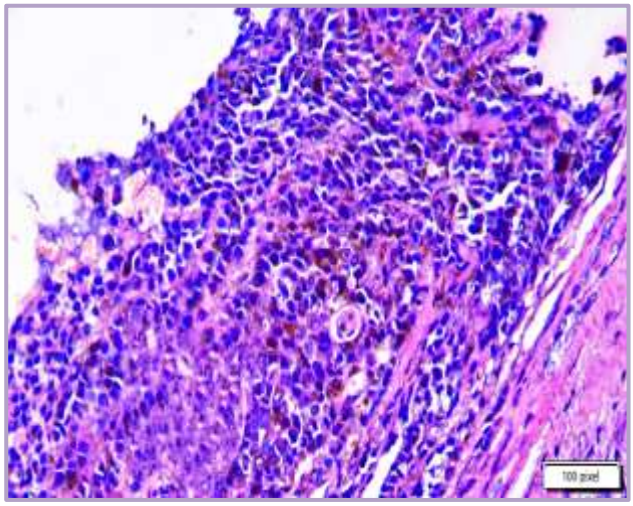

Figure 2: Tumour cells present in sheets with pleomorphic nuclei and prominent nucleoli. Melanin pigment deposition is present. (H&E, 10X)

The patient was advised to undergo follow-up with complete clinical surveillance every 6 months to rule out any recurrence or metastasis in the Department of Surgery and Medical Oncology of our institute. No additional therapy was advised as the patient belonged to pathological grade 1b [8]. The patient was later referred to the psychiatry department of Jorhat Medical College and Hospital, Assam, India for further evaluation due to the nature of the injury. The patient was guarded during the initial psychiatric evaluation. However, the patient later reported her preoccupation with her physical appearance, particularly her facial skin color, since the age of 17. She acknowledged spending at least 6 to 8 hours each day checking her facial skin color, considering her appearance. She would also spend the majority of her day worrying about her appearance; she would engage in habitual skin excoriation to remove any minor perceived skin flaws, and she would frequently visit her dermatologist or search the internet for treatment to improve her skin. Even after repeated assurances regarding her skin color and appearance from her doctor and family members, she would say that she remained preoccupied with her appearance. The patient also recalls being frequently absent or late for work due to her appearance. But, in the last two months, she's noticed a black spot on her right ankle. Initially, she attempted to excoriate the spot as she would in her face, but the lesion grew in size. She would remain distressed due to the spot over her ankle and would often try to conceal the lesion by putting on makeup, wearing socks, or wearing long clothing. She would remain preoccupied with the thoughts of people who noticed the lesion. After failing to pluck the lesion, she attempted to cut it with a knife on her own. When the wound did not heal, she went to the surgery department for treatment. The patient belonged to the lower socio-economic strata and attended school up to class 6. The patient did not have a history of any other psychiatric illness, any significant drug history, or any similar illness in the family.

Thus, a final diagnosis of body dysmorphic disorder (DSM V) was established, and the patient was started on Fluoxetine at 20 mg/day initially, which was later increased to 40 mg/day. Along with pharmacological treatment, she was also started on cognitive behavioral therapy (CBT) and sessions were started in outpatient settings.

Discussion

Due to the intensely sensitive and individualized nature of its symptoms, BDD frequently goes undetected or is incorrectly identified as another disorder, resulting in inadequate care and psychiatric therapy [9, 10]. In our case, the patient had come to seek psychiatric help for the first time despite suffering from the illness for a long time.

Cancer survivors experiencing body image issues represent a vulnerable group and are prone to various psychological disorders, including depression, body dysmorphic disorder, sexual dysfunction, etc. [11]. According to Virginia et al, patients who had breast cancer surgery were more likely to experience psychological distress and possibly have poorer post-surgical adjustment [12]. Similar problems were faced by cancer survivors who were suffering from chemotherapy-induced alopecia [13]. In our peculiar case, the patient attempted to excise the lesion she discovered in her ankle. On careful psychiatric evaluation, the patient had an excessive and persistent preoccupation with her appearance, which caused severe psychological and social morbidity and drove her to her actions. In the present case, the lesion was later diagnosed as

malignant melanoma, which may offer serious diagnostic challenges. It is a malignant tumor of melanocytes, which is an aggressive neoplasm with high motility [14]. The tumor commonly presents as a flat or elevated lesion, or sometimes it can present as a nodular lesion with variable pigmentation of the overlying skin [15]. In the literature, BDD is related to several skin disorders, including various skin cancers [6]. The relationship between the effects of malignant melanoma lesions leading to BDD is not completely studied. However, lesions of the skin can trigger psychological stress and anxiety, leading to BDD and depression [6, 16]. The patient is currently on fluoxetine 40 mg/day along with regular CBT sessions and is responding well to her treatment. After six months of surgery, she has not reported any recurrences or the appearance of new lesions in her body. On radiological evaluation, she is free from any metastatic deposit of malignant melanoma at any other site and has been advised to make regular visits to our medical facility for surveillance.

Conclusion

BDD is still underdiagnosed in clinical settings despite its frequency and severity. BDD must be acknowledged and properly diagnosed given the notably poor functioning and quality of life, as well as the high rates of suicidality, among these patients.

Abbreviation

BDD: Body dysmorphic disorder; DSM-V: Diagnostic and Statistical Manual of Mental Disorders; FNAC: Fine needle aspiration cytology; CBT: cognitive behavioral therapy.

Declaration

The authors declared that the pictures (Histological Smears) used in the article belong to the present case itself which we received in our department. The citation has been given in the case presentation section in the representative places. Furthermore, we do not have a picture of the lesion (the self-inflicted lesion on the patient's right ankle) at this time, as the case initially presented in the department of surgery, which had already been surgically treated before it came to the department of pathology.

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Availability of data and materials

Data will be available by emailing arabha818@gmail.com.

Authors' contributions

Geet Bhuyan (GB) was the principal investigator of this manuscript and approved the final manuscript. Anjumoni Rabha (AR) was responsible for the design, reviewing, and editing of the manuscript in its final form. All authors read and approved the final manuscript.

Ethics approval and consent to participate

We conducted the research following the Declaration of Helsinki. Ethical permission was granted by the Institutional Ethics Committee, Jorhat Medical College and Hospital, Assam, India [October 2022].

Consent for publication

Not applicable

Competing interest

The authors declare that they have no competing interests.

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