Dermatoscopy in pregnancy

Dermatoscopia na gestação

Authors:
Juliana Machado Canosa[1]
Eduard René Brechtbühl[2]
João Pedreira Duprat Neto[3]
Gisele Gargantini Rezze[4]

[1] Dermatologist Physician, Skin Cancer and Dermatology Center, Hospital AC Camargo da Fundação Antonio Prudente – São Paulo (SP), Brazil
[2] Plastic Surgeon, Skin Cancer and Dermatology Center, Hospital AC Camargo da Fundação Antonio Prudente
[3] Oncologic Surgeon, Skin Cancer and Dermatology Center, Hospital AC Camargo da Fundação Antonio Prudente
[4] Dermatologist Physician, Skin Cancer and Dermatology Center, Hospital AC Camargo da Fundação Antonio Prudente

ABSTRACT

Cutaneous melanoma's prognoses depend primarily on the tumor's thickness; early detection of melanomas is extremely important to increase a patient's chances of survival. The use of dermatoscopy can be up to 90% accurate. Changes in pigmented lesions may occur during pregnancy, however the challenge lies in knowing whether such changes are benign or whether they indicate a melanoma. Dermatoscopy is an important diagnostic tool that increases the accuracy of detection and diagnosis of the margins of melanomas in their earliest stages, which consequently improves patients' prognosis and survival rates.
Keywords: pregnancy; melanoma; dermoscopy.

RESUMO

O prognóstico do melanoma cutâneo depende principalmente da sua espessura, sendo a detecção precoce de melanomas iniciais extremamente importante para a maior sobrevida dos pacientes. Com a utilização do exame dermatoscópico, pode-se alcançar acurácia de aproximadamente 90%. Alterações em lesões pigmentadas durante a gestação podem ocorrer, porém a dificuldade é saber se são benignas ou se correspondem a melanoma. O recurso diagnóstico da dermatoscopia permite aumentar a margem de acerto no diagnóstico e na detecção do melanoma nos estádios mais iniciais, melhorando o prognóstico e consequentemente a sobrevida do paciente.
Palavras-chave: *gravidez; melanoma; dermoscopia.*

INTRODUCTION

Cutaneous melanoma's prognosis mainly depends on its thickness, and early detection of initial melanomas is extremely important for the patient's long-term survival. When carried out by dermatologists using the naked eye, the diagnostic accuracy of cutaneous melanoma is estimated at 75-80%. It can be even lower when carried out by general practitioners and resident physicians. However, the diagnosis of cutaneous tumors can be up to 90% accurate when physicians use dermatoscopic examinations, [1-3] a non-invasive method.

Dermatoscopic structures and colors, and their distribution, can help differentiate between melanocytic and non-melanocytic lesions and between malignant and benign tumors.[3]

Correspondence:
Hospital AC Camargo
Núcleo de Câncer de Pele e Dermatologia
Rua Professor Antonio Prudente, 211 – Liberdade
01509-010 – São Paulo – SP, Brazil
E-mail: jqpmachado@uol.com.br

Received on: 22/08/2011
Approved on: 08/09/2011

This study was carried out at the Hospital AC Camargo da Fundação Antonio Prudente – São Paulo (SP), Brazil

Conflicts of interests: none
Financial support: none

CASE REPORT

This case describes a 30-year-old white female patient originally from Sao Paulo, state of Sao Paulo, Brazil. Her family history includes a father with esophageal cancer and a mother and paternal aunt with breast cancer. The patient was referred to Hospital AC Camargo by another care service after reporting a lesion in the upper right arm, which was removed in January 2010. The pathological examination of the excised tissue revealed an extensive superficial melanoma of radial growth, with a 0.3 mm Melanoma Breslow Score, a 0/10 mitotic index high-power fields (HPF,) 0 /mm^2, minor peritumoral lymphocitary infiltration, and the presence of a pre-existing nevus and free margins. An increase of the margins was then recommended; the pathological exam the following month displayed cicatricial dermal fibrosis with foreign body type gigantocellular reaction and a lack of residual neoplasia.

Digital dermatoscopy was conducted on February 22, 2010 (Figure 1), with the inclusion of 208 lesions; an exeresis was not recommended. According to the hospital's follow-up protocol, another digital dermatoscopy was carried out on March 31, 2010 (Figure 2), again without an indication for exeresis. The patient then did not show up for the six-month follow-up visit, as instructed. During the one-year period after the March 2010 visit, the patient became pregnant and had an abortion, only undergoing a new digital dermatoscopy on March 25, 2011. One of the lesions in the abdomen presented significant growth, suggesting melanoma (Figures 3). The anatomical pathological report dated June 1, 2011 is as follows:

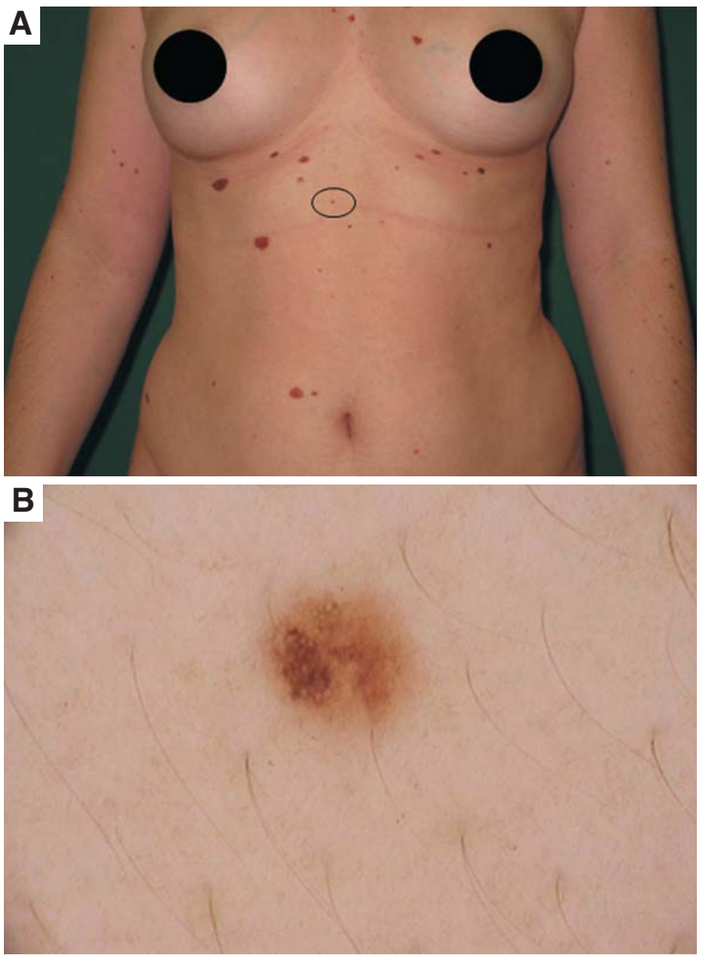

Figure 1 - Total corporal mapping and digital dermatoscopy carried out on February 22, 2010; **A -** Macroscopic photograph; **B -** Dermatoscopy of the lesion followed up

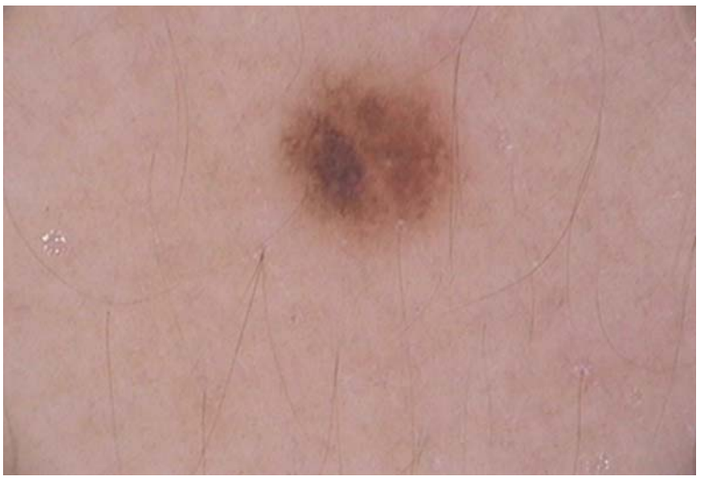

Figure 2 - Dermatoscopy of the lesion followed up, carried out on March 31, 2010

Invasive malignant melanoma.
Type: superficial extensive.
Growth phase: radial.
Ulceration: Not detected.
Clark's level: II.
Infiltration depth (Breslow): 0.33 mm.
Mitotic index: 0/10 HPF 0/mm².
Peritumoral inflammatory infiltrate: intense.
Intratumoral inflammatory infiltrate: not detected.
Regression areas: not detected.
Vascular invasion: not detected.
Lymphatic invasion: not detected.
Perineural invasion: not detected.
Microscopic satellitosis: not detected.
Pre-existent nevus: not detected.
Surgical margins of resection: not compromising.

DISCUSSION

Melanoma is one of the most commonly diagnosed tumors during pregnancy, after breast and cervical cancers. While the occurrence of malignant tumors in pregnant women is approximately one in 1,000, around 8% of all tumors detected during pregnancy are melanomas.[4,5] Modifications in pigmented lesions are known to take place during pregnancy, however it is difficult to differentiate between benign alterations and melanomas. For that reason, diagnostic dermatoscopy was used in order to increase the diagnostic accuracy and the probability of detecting

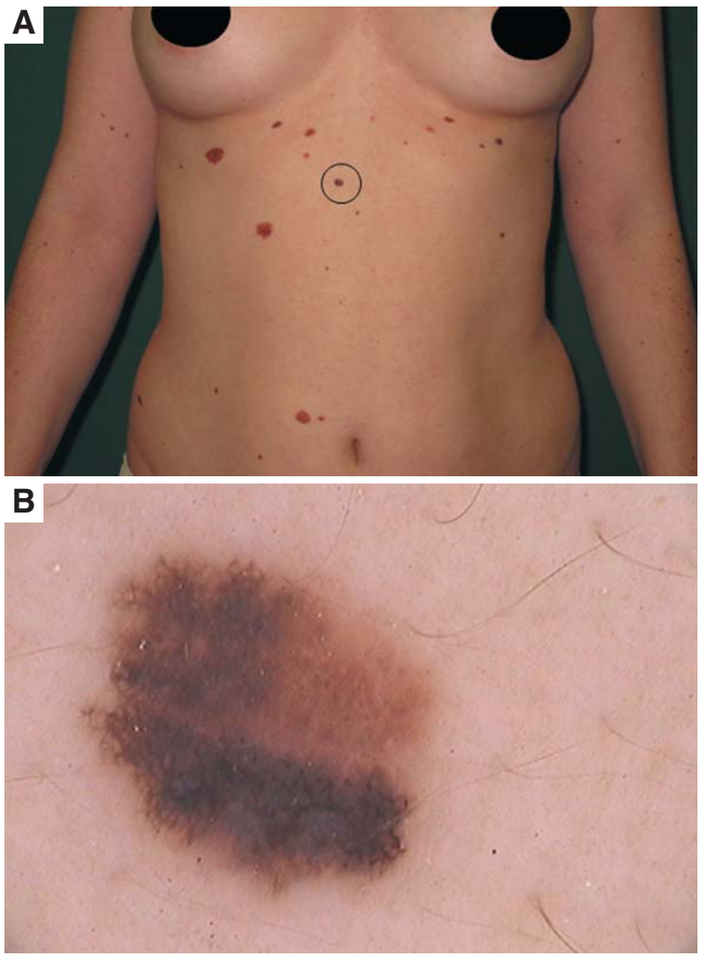

Figure 3 - Total corporal mapping and digital dermatoscopy carried out on March 25, 2011; **A -** Macroscopic photograph; **B -** Dermatoscopy of the lesion followed up

melanomas in the earliest stages, consequently improving the prognosis and the patients' chance of survival.[1]

According to Menzies and colleagues, some initial melanomas might not present features that distinguish them from benign lesions. In those cases, a dermatoscopic follow-up is crucial for early detection.[1]

At the time of writing, the study patient was under a clinical and dermatoscopic follow-up program at the outpatient clinic of the Núcleo de Câncer de Pele e Dermatologia (Skin Cancer and Dermatology Center) of Hospital AC Camargo. ●

REFERENCES

1. Menzies SW, Gutenev A, Avramidis M, Batrac A, McCarthy WH. Short-term digital surface microscopic monitoring of atypical or changing melanocytic lesions. Arch Dermatol. 2001:137(12):1583-9.
2. Haenssle HA, Krueger U, Vente C, Thoms KM, Bertsch HP, Zutt M, et al. Results from an observational trial: digital epiluminescence microscopy follow-up of atypical nevi increases the sensitivity and the chance of success of conventional dermoscopy in detecting melanoma. J Invest Dermatol. 2006;126(5):980-5.
3. Rezze GG; Sá BCS, Neves RI. Dermatoscopia: o método de análise de padrões. An Bras Dermatol. 2006;81(3):261-8..
4. Youn SH, Lee YW, Seung NR, Park EJ, Cho HJ, Kim KH, et al. Rapidly progressing malignant melanoma influenced by pregnancy. Int J Dermatol. 2010;49(11):1318-20.
5. Stensheim H. Malignant melanoma and pregnancy. Onkologie. 2009;32(12):715-6.