

Melanoma in situ: a case report from the patient's perspective

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Introduction: Melanoma can be a fatal form of skin cancer. The prognosis rapidly deteriorates from the in situ stage (stage 0) to stage 4. As such, early detection and treatment are key.

Case Presentation: A middle-aged patient, who was also a chiropractor, self-identified a small skin lesion using the Chiropractors Guide to Skin Cancer. The primary care physician made a dermatology referral, and biopsy identified melanoma. Surgery was subsequently booked and the lesion was excised with a 5 mm margin. The final pathology report confirmed a diagnosis of melanoma in situ.

Summary: As primary contact health care providers chiropractors can play a significant role in the potential

Introduction : Le mélanome est un cancer de la peau pouvant être fatal. Le pronostic s'assombrit rapidement entre le stade 0 (mélanome in situ) et le stade 4. Un dépistage et un traitement précoces sont essentiels.

Présentation du cas : Un patient d'âge mûr, qui était aussi un chiropraticien, a décelé chez lui une petite lésion cutanée à l'aide du Chiropractors Guide to Skin Cancer (guide servant à aider le chiropraticien à dépister un cancer de la peau). Un médecin de premier recours l'a dirigé vers un dermatologue; l'examen de la biopsie a révélé un mélanome. Un rendez-vous en chirurgie a été pris. La lésion et une marge chirurgicale de 5 mm ont été excisées. Le rapport final du laboratoire de pathologie a confirmé le diagnostic d'un mélanome in situ.

Résumé : À titre de fournisseurs de soins de santé primaires, les chiropraticiens peuvent jouer un rôle important dans le dépistage de diverses affections

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identification and initiation of investigations into various possible dermatological disorders including skin cancer. Efforts should be made to diagnose melanoma at the in situ stage to ensure the best outcome.

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KEY WORDS: melanoma, self-exam, skin cancer, chiropractic

Introduction

Melanoma is the most deadly form of skin cancer (Figure 1).¹ If detected at the in situ stage and properly treated the risk of mortality is essentially negligible.² At the in situ stage the malignant tumour is restricted to the outer layers of the skin (epidermis).³ The cancer cells at this stage are therefore only in the upper layer of the skin and have not seeded into the dermis or beyond.³

Chiropractors often see patients on an ongoing basis in clinical practice and are in an excellent position to observe the evolution of skin pathology and initiate the correct referral to the patient’s physician. This report documents a case involving a chiropractor who was diagnosed with melanoma in situ. This case is also presented from



Figure 1.

An example of a melanoma

(source: <https://commons.wikimedia.org/wiki/File:Melanoma.jpg> [Accessed April 28 2017]).

cutanées dont le cancer de la peau et l’amorce des examens exploratoires. On devrait déployer des efforts pour que le mélanome soit diagnostiqué au stade 0 (mélanome in situ) pour assurer la meilleure issue possible.

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MOTS-CLÉS : mélanome, auto-examen, cancer de la peau, chiropratique

the patient’s perspective to help illustrate the patient experience as well as the steps to proper management of this common but potentially deadly disorder.

Case Presentation

History

I am a 51-year-old male chiropractor. My melanoma in situ experience begins in my youth. I was an avid windsurfer and had frequent sunburns of my feet from standing on the surfboard. I had a small mole on the dorsum of my left foot for as long as I can remember. Having had so much sun exposure from outdoor sports, I realized that I was at risk for skin cancer. I would occasionally check my

Table 1.
*The ABCDE’s of melanoma.*⁴⁻⁷

Category	Description
A	Asymmetry of shape of one half of the lesion compared to the other half
B	Border of the lesion is irregular, jagged, notched or may blur pigment into the surrounding skin
C	Colour of the lesion may be varied with shades of black, brown, blue and white
D	Diameter of the lesion is greater than 6 mm, or larger than the end of an eraser
E	Evolution of the size, shape, elevation, surface or colour of the lesion has occurred over time
The “Ugly Duckling” sign. One lesion stands out as different from all the others.	

skin for any unusual moles. When I received the *Chiropractors Guide to Skin Cancer*⁴ a number of years ago, I read it from cover to cover several times and used the photographs as a resource for checking my own skin.

About 18 months prior to my skin cancer diagnosis, I noticed that the mole on the dorsum of my foot appeared larger. It was flat, multi-coloured, and asymmetrical in shape, had an irregular border and was about 4 mm in diameter. Contained in the *Guide* was information on the ABCDE's of melanoma (Table 1).⁴ The mole on my foot had several of these concerning features, but it was smaller than the 6 mm diameter size typical of melanoma lesions.⁴

I decided to make an appointment with my family physician. I showed the physician the lesion, but he was not concerned. I continued to observe the mole and a year later it had grown to 5 mm in diameter. By this time my family doctor had retired and I was taken on by another family physician. I made an appointment with this physician and showed her the area of concern. Again the lesion was deemed unremarkable. I also showed the physician another lesion on my thigh that I had been following and this resulted in a dermatologist referral. At that appointment, the dermatologist used cryotherapy to remove the lesion on my thigh. I asked the dermatologist to perform a full body skin check as well and a lesion on my back was identified along with the one on my foot, and these were subsequently scheduled for biopsy.

Intervention and Outcome

I returned to the dermatologist for the superficial shave biopsies. Briefly, superficial shave biopsies involve removal of a thin disc of tissue, typically by scalpel, yielding a flat thin specimen limited to the epidermis and upper dermis less than 1 mm in total depth.⁸ In my case, the dermatologist said that he "wasn't too worried" but was performing the biopsies to be safe. He said they would get the results in four weeks and if I didn't hear anything from them, this would mean that everything was fine. I received a call 10 days later, however, to come in for a follow up appointment. I really wasn't concerned and assumed they just wanted to see how the biopsy sites were healing. The dermatologist walked into the room with a concerned look. He said the lesion on my back was only a dysplastic nevus (i.e. an unusual-looking benign, noncancerous mole).⁹ The lesion on my foot however was melanoma in

situ. I zoned out hearing those words, knowing the seriousness of melanoma. He said I would require surgery and possibly a skin graft. He gave me a copy of the pathology report. There was no pathology extending to the deep margin on the specimen; but the tumour did extend to one peripheral margin, which meant more tumour may remain with a potentially higher stage and thus a greater risk of death. The dermatologist recommended that I return in four months. He also informed me that in the first two years after diagnosis there is a higher chance of other melanomas appearing. He therefore instructed me to perform regular skin checks and to return sooner than four months if I found anything suspicious.

Two weeks later I saw the general surgeon. He said no graft would be required; however a 5 mm margin of skin surrounding the lesion would have to be removed and several stitches would be needed. The surgeon indicated that the final pathology report from that specimen would confirm if it was in fact melanoma in situ or a higher stage which would then require further surgery. The surgery was performed with a local anesthetic and a piece of skin (about the size of a Canadian loonie) was removed. The stitches made the skin on the dorsum of my foot quite tight. I walked with a limp, not out of pain, but to prevent the stitches from being pulled out. I worked later that day being careful to not stress the area. I had some pain when the freezing wore off, but only required one extra-strength ibuprofen that first night for relief. The skin slowly stretched out and the pain reduced over the next three weeks. I stopped lower extremity exercises until the stitches could be removed.

Three and a half weeks later, I telephoned the surgeon's office and was told the final pathology report confirmed no residual disease and therefore a final diagnosis of melanoma in situ. I felt such relief at hearing that news. The next day I returned to the surgeon and the stitches were removed. Currently, I continue to perform regular monthly skin checks on myself, and I follow-up with the dermatologist every 4 months for ongoing melanoma screening.

Discussion

Melanoma can be screened for using the ABCDE's of melanoma (see Table 1).⁴⁻⁷ The lesion diameter of 6 mm is an accurate size parameter for determining the risk of melanoma.⁵ There is a higher risk of invasive melanoma (i.e. seeding of melanoma beyond the epidermis) when

Table 2.
Survival rates of melanoma based on stage.^{2,10,11}

Stage	Survival rate
0 (in situ)	99.9% 5-year survival; 98.9% 10-year survival
I/II	89 to 95% 5-year survival
II	45 to 79% 5-year survival
III	24 to 70% 5-year survival
IV	7 to 19% 5-year survival

moles are greater than the 6 mm diameter size.⁷ In Australia doctors have been screening for and identifying melanomas smaller than 6 mm, however evidence suggests that this method does not necessarily improve diagnostic accuracy or patient prognosis.^{5,7} A more important parameter than size in detecting early-stage melanomas may be whether the lesion is evolving (i.e. change of size, shape, elevation, surface or colour of lesion over time).^{5,7} In the current case, the melanoma lesion was smaller than 6 mm in diameter yet showed signs of evolution in size over the course of 12 months. The lesion also exhibited signs of asymmetry, border irregularity, and colour variegation.

The basic tumour staging of melanoma includes five stages, stage 0 (in situ) to stage IV.¹⁰ The survival rates based on this staging system are listed in Table 2 and the main types of melanoma are listed in Table 3.^{10,11,12} In general, the prognosis deteriorates from the in situ stage (stage 0) to stage IV. There is also a more detailed staging approach that is often used known as the TNM system.¹⁰ **T** describes the thickness of the melanoma, **N** describes how many lymph nodes are affected, and **M** describes metastasis or spread to distant organs of the body.¹⁰ In either case, every effort should be made to diagnose melanoma at the in situ stage as the prognosis rapidly deteriorates with stage increase.¹¹

When compared to the final excision pathology report, superficial shave biopsy has a depth accuracy rate for staging in the range of 81-88%.^{2,13} For lesions that are less than 1 mm in depth the accuracy is 96%.⁸ If the superficial shave biopsy margins are clear (i.e. there are no tumour cells extending beyond the edge of the biopsy specimen, either at the sides or the bottom) the staging accuracy is

Table 3.
The four main types of melanoma.¹²

Type	% of cases
Superficial spreading melanoma	70
Nodular melanoma	15
Lentigo maligna melanoma	13
Acral lentiginous melanoma	2-3

93%.¹³ In the current case the tumour extended to one peripheral margin of the biopsy specimen, slightly reducing the accuracy rate to 85%.¹³ Nevertheless, a diagnosis of melanoma in situ was made.

Surgery to remove the lesion and surrounding skin is the gold standard treatment for melanoma.¹⁴ For melanoma in situ, the surgical margin includes skin removal up to 5 mm around the mole.^{14,15} Tumours with a depth of less than 1 mm also do not require sentinel lymph node biopsy.¹⁵ For higher stage/invasive tumours (i.e. stages I to IV) the surgical margin surrounding the lesion can be as great as 10 to 20 mm.^{14,15} In addition, sentinel (e.g. inguinal or axillary) lymph node biopsy, with possible surgical removal, is normally required.^{14,15}

The frequency of melanoma is increasing.^{14,16} Estimates for 2016 in the United States were 76,380 new cases of invasive melanoma and 68,480 new cases of melanoma in situ.¹⁴ The incidence rate and death rate of melanoma have also increased significantly among Canadian men and women over the past 25 years.¹⁶

The risk of recurrence and higher risk of additional new melanomas after diagnosis warrants long-term skin checks by a dermatologist and self-exams by the patient.¹⁷ A web link to the Skin Cancer Foundation (<http://www.skincancer.org/skin-cancer-information/early-detection/step-by-step-self-examination>) provides patients with information on how to conduct a self-exam of their skin and how to properly document their findings.^{18,19} Taking a dated picture of a suspicious lesion next to a ruler allows patients to monitor for changes and notify their physician as required. In all cases the patient should be proactive and advocate for themselves in the health care system.

Although preliminary, some research has shown an as-

sociation between regular white wine consumption, use of growth hormone, Parkinson's disease, psychosocial stress, or the use of biologic medication (e.g. TNF-alpha inhibitors for Crohn's disease) and increased risk of melanoma.²⁰⁻²⁴ Exercise, vitamin D, or coffee consumption may help to reduce the risk of melanoma;²⁵⁻²⁸ however further investigations on these and other dietary/lifestyle factors and associated effects on melanoma risk are needed.

Limitations

A key limitation of this paper is the inherent/unintentional bias that the principal author may bring to the report as it is written from the patient's perspective. Moreover, this case report may have biased observations in how the principal author recounted the clinical details.

Summary

The patient in this case (CAB) has returned to exercising and carrying on with normal life. Regular skin checks by the dermatologist will continue to occur on a long-term basis.¹⁷ Three of the authors on this paper (CAB, TD, HD) have been diagnosed with melanoma. We have written this paper to increase chiropractors' awareness of this common skin disorder. Doctors of chiropractic are primary care providers in an excellent position to detect and monitor skin lesions and refer as required. The earlier melanoma is detected, the greater the chance of survival.²⁹ Hence, chiropractic screening and early detection of suspicious skin lesions in clinical practice could save a patient's life – or as in the current case, the chiropractor's.

Key Points:

- Melanoma is the most deadly form of skin cancer
- Regular skin checks by the physician and patient are recommended
- All efforts should be made to detect melanoma at the in situ stage
- Treatment at the in situ stage has a nearly negligible mortality rate

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