**TITLE OF CASE**
Melanoma: The Importance of Patient Education and Early Detection

**AUTHORS OF CASE** Please indicate corresponding author by *
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**SUMMARY** Up to 150 words summarising the case presentation and outcome
Patient is a 67 year-old male who presented to a quick care for right knee pain. After examination of his knee, a very suspicious looking lesion was noted above his right knee. The lesion was removed with a punch biopsy and sent for pathology. The lesion came back as stage I superficial spreading melanoma. Patient was referred to a dermatologist who removed the lesion with 1 cm margin. The wound healed without complication. Patient was instructed on how to perform monthly self-examinations of his skin and to get yearly exams by his dermatologist.

**BACKGROUND** Why you think this case is important – why you decided to write it up
Melanoma is the most serious kind of skin cancer, yet there is not enough emphasis placed on it. Patients are not adequately educated on the warning signs or the measures that can be taken to prevent it. Also, primary care providers often do not include a thorough skin exam in a routine physical examination. Early detection of melanoma is the key to decreasing mortality, but we as primary care providers are not following through. I feel it is important to change the way we are dealing with this deadly disease. We need to educate our patients on the warning signs of malignant lesions and encourage them to avoid sun exposure and wear sunscreen everyday. Lastly, we need to promote both regular self and professional skin exams.

**CASE PRESENTATION** Presenting features, medical/social/family history
History of Present Illness: 67 year-old Caucasian male presented to the clinic with a complaint of right knee pain. After the examination of his knee, a lesion was noted above his right knee. When asked about the lesion, patient reported that his doctor had told him to “keep an eye on it.” He explained that the lesion had changed in size and shape, but that he did not report to his doctor. The lesion did not itch or bleed.
Past Medical History: Patient did not have a previous history of melanoma.
Family History: No family history of melanoma.
Social History: Patient works in the summer at a harbour working on boats. He spends most of his day outside and in direct sunlight.
Physical Exam:
- Vitals: P: 78 BP: 130/78 T: 98.4
• Skin: Slightly raised lesion with varying shades of black and brown located above patient’s right knee. The lesion had an irregular border and was 9mm in diameter. No surrounding erythematous areas. No other lesions were noted.

INVESTIGATIONS If relevant
Lesion was removed by punch biopsy and sent for pathology. Pathology came back as stage I superficial spreading melanoma.

DIFFERENTIAL DIAGNOSIS If relevant
Many skin lesions can be confused with melanoma. First of all, it is important to differentiate a malignant lesion from a common (benign) nevus. Other lesions in the differential diagnosis include basal cell carcinoma, squamous cell carcinoma, seborrheic keratosis and actinic keratosis.

TREATMENT If relevant
The lesion was removed with 1 cm margin by a dermatologist. No further treatment was necessary.

OUTCOME AND FOLLOW-UP
Patient had a follow-up appointment with the dermatologist for suture removal and the wound healed without infection or other complications. Patient was educated on the warning signs of malignant lesions and was instructed to perform monthly self-examinations to look for such lesions. Patient was also to have yearly skin examinations by his dermatologist and was educated on the importance of avoiding sun exposure and using sunscreen.

DISCUSSION including very brief review of similar published cases (how many similar cases have been published?)
Risk factors: A study by Goldberg et al. investigated the risk factors for melanoma. They screened more than 1.7 million people from 2001 from 2005 and identified five factors. These were a history of previous melanoma, age over 50, no regular dermatologist, a mole that changes and male gender. The patient from my case presentation had four of these factors, but he was not adequately educated about them.

Screening: A study in 2008 performed by LeBlanc et al. found that routine examinations by primary care physicians frequently do not include a thorough skin examination. This was a devastating finding considering that early detection of skin cancer by periodic skin examinations decreases the morbidity and can even improve survival. They recommended that primary care providers perform skin exams especially on patients at increased risk of excessive occupational sun exposure. This directly pertains to the patient from my case presentation because he worked in the sun during the summer months but was not getting thorough
skin examinations.

Diagnosis: In 2008, a study investigated the different ways to biopsy a lesion for diagnosing melanoma. Tran et al. found that an excisional biopsy with 1-3mm margin was optimal. However, the study also found that incisional, punch and shave biopsies could be performed. In my case presentation, the lesion was removed by a punch biopsy. The diagnosis of melanoma was still made, even without using the optimal procedure found in this study.

Treatment: Many studies by the American Cancer Society found that treatment depends on the stage of melanoma. For example, stage 0 melanoma is treated with surgical removal of the melanoma and a margin of about ½ cm of normal skin. Stage I melanoma should be treated with surgical removal along with 1 cm margin. Stage II melanoma should be treated with surgical removal and a margin depending on lesion thickness as well as a sentinel lymph node biopsy. Stage III requires wide excision and lymph node dissection and stage IV requires treating metastases. In my case presentation, the patient was found to have stage 1 melanoma and the treatment paralleled these guidelines. His lesion was removed with 1 cm margin by the dermatologist.

LEARNING POINTS/TAKE HOME MESSAGES 3to 5 bullet points

• Patient education is vital for the prevention of melanoma. Patients need to know the warning signs of malignant lesions and also the importance of avoiding sun exposure and using sunscreen.
• Skin exams can save lives. Patients should be instructed to perform monthly self-examinations of their skin and have yearly exams by a dermatologist.
• Always be on the lookout for suspicious lesions during any patient exam even when there is a different chief complaint. When a lesion is found, perform a biopsy and send it for pathology or refer the patient to a dermatologist.

REFERENCES


Date: November 14th, 2008

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