Case Report: Detection and Excision of Melanoma in Situ in an Australian Primary Care Setting

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Case History

A 65-year-old farmer presented to a Family Practice Clinic in Mundijong, Western Australia which is a semi-rural practice. He had a long-standing skin lesion on his upper back that had recently changed colour, which is a red flag. The patient had a past medical history of Ischemic Heart Disease.

Mechanical Heart Valve and Atrial Fibrillation and was taking Bisoprolol, Atorvastatin, Ramipril and Warfarin. He had no allergies. When taking a history and examining a patient one can utilize the ABCDE approach.



Dermoscope used in the diagnosis of Pigmented skin lesions

Background

Melanoma rates in Australia are amongst the highest in the world and there is an increasing global incidence of rates of melanomas. The life time risk is 2.4% in Caucasians [1]. Risk factors for developing a melanoma include phenotypically pale white skin, history of sun burn, UV exposure, the presence of a high number of moles, 1st degree relative with history of invasive cutaneous melanoma and previous personal history of melanoma [2].

Due to the incidence of Skin cancer in Australia, General Practitioners often perform skin checks and consult patients with new or changing skin lesions and these are assessed using history, naked eye examinations and as in this case dermoscopy. Dermoscopy is a magnifying diagnostic instrument that can show features of a melanoma much more clearly than a naked eye exam and hence leads to a more accurate diagnosis of melanoma and early detection [3]. Dermoscopy also leads to reduced unnecessary excisions and secondary care referrals [4].

Dermoscopy

The patient was examined using a dermoscope also known as a dermatoscope. Dermoscopic features were seen suggestive of Melanoma including chaos and clues. Chaos refers to the lack of symmetry and uniformity of the lesion. Features suggestive of melanoma on dermoscopy include brown colour, grey colour, thick lines, eccentric structureless areas and blue grey structures [5].

Excisional biopsy

The skin lesion was excised under local anesthetic in the primary care clinic. An ellipse was drawn around the lesion and the lesion excised and wound sutured. The skin lesion was sent for histopathology. Skin lesion excision is a basic surgical skill often taught on minor surgery skills courses for family medicine physicians.

Histopathology report

The histology report of the skin lesion showed sun damaged skin. An asymmetrical junctional melanocytic proliferation composed of variably sized and shaped nests of melanocytes at the tips of rete ridges, showing bridging. Foci with confluent nests noted. There is an intervening lentiginous component, showing focal confluence. There is extensive pagetoid spread. An intradermal component is not identified. There is papillary dermal fibrosis and features of regression focally. The lesion is 5mm from the lateral margin. The histology was consistent with a Melanoma in Situ arising in a dysplastic naevus which was completely excised.

Margins required

Re-excision of the lesion area was required to ensure adequate margins. Evidence does suggest 5mm margins for a melanoma is sufficient but 10mm margins is more desirable to prevent local recurrence [6]. Hence, a further minor procedure was done with histology showing complete clearance.

Summary

This 65 year old farmer presented with a pigmented skin lesion that was assessed using dermoscopy which suggested features of melanoma. Dermoscopic examination can aid early detection of skin malignancy. An excisional biopsy revealed a Melanoma in situ and a re-excision was conducted to ensure adequate 10mm margins. Primary care can play an important role in the early detection and management of pigmented skin lesions.

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