Cirugía y Cirujanos. 2016;84(1):77–84

CIRUGÍA y CIRUJANOS
Órgano de difusión científica de la Academia Mexicana de Cirugía
Fundada en 1933
www.amc.org.mx www.elsevier.es/circir

GENERAL INFORMATION

Update on surgical treatment of primary and metastatic cutaneous melanoma☆

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Received 14 October 2014; accepted 10 December 2014
Available online 11 February 2016

KEYWORDS
Cutaneous melanoma;
Treatment;
Surgical;
Sentinel lymph node biopsy;
Radical lymphadenectomy

Abstract Melanoma is a common cutaneous tumour. It is of great importance due to its increasing incidence and aggressive behaviour, with metastasis to lymph nodes and internal organs. When suspecting melanoma, excisional biopsy should be performed to obtain complete histological information in order to determine the adverse factors such as ulceration, mitosis rate, and Breslow depth, which influence preoperative staging and provide data for sentinel lymph biopsy decision making. The indicated management for melanoma is wide local excision, observing recommended and well-established excision margins, depending on Breslow depth and anatomical location of the tumour. Therapeutic lymphadenectomy is recommended for patients with clinically or radiologically positive lymph nodes.

This article reviews surgical treatment of melanoma, adverse histological factors, sentinel lymph node biopsy, and radical lymphadenectomy.

Details are presented on special situations in which management of melanoma is different due to the anatomical location (plantar, subungual, lentigo maligna), or pregnancy.

PALABRAS CLAVE
Melanoma cutáneo;
Tratamiento;
Quirúrgico;

Actualización en el tratamiento quirúrgico del melanoma cutáneo primario y metastásico

Resumen El melanoma es una neoplasia cutánea común que ha alcanzado gran importancia en las últimas décadas debido al aumento en su incidencia y a su comportamiento agresivo, con

☆ Please cite this article as: Zuluaga-Sepúlveda MA, Arellano-Mendoza I, Ocampo-Candiani J. Actualización en el tratamiento quirúrgico del melanoma cutáneo primario y metastásico. Cir Cir. 2016;84:77–84.

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Biopsia ganglio centinela;
Linfadenectomía radical

metástasis ganglionares y a distancia frecuente. La biopsia, en caso de sospecharse melanoma, debe ser escisional, con el objetivo de obtener información histológica completa y analizar factores de mal pronóstico, como ulceración, número de mitosis y el Breslow, que influyen en la estadificación preoperatoria del paciente y en la decisión de realizar biopsia de ganglio centinela o no. La escisión local amplia es el manejo indicado para el melanoma con márgenes periféricos de piel normal ya establecidos de acuerdo al Breslow y a la localización del tumor. La linfadenectomía terapéutica es el tratamiento recomendado de los pacientes con melanoma que tienen ganglios linfáticos clínica o radiológicamente positivos.

En este artículo se realiza una revisión del tratamiento quirúrgico del melanoma, la toma adecuada de biopsia de lesiones sospechosas, los factores histológicos adversos, las indicaciones de biopsia del ganglio centinela y de linfadenectomía radical. Además se revisan situaciones especiales en las cuales el manejo del melanoma difiere por su localización (acral plantar, subungueal, lentigo maligno) o diagnóstico durante el embarazo.

Background

Primary cutaneous melanoma is one of the most common skin cancers. It is the fifth most common malignant neoplasm in men and the sixth most common in women; it is associated with high morbimortality due to its aggressive behaviour, its high risk of regional and distant lymph node metastases.[1] It is estimated that in the United States approximately 76,000 people will have been diagnosed with melanoma in 2014, and 9710 deaths will be attributed to this cancer.[2] Seventy-five percent of skin cancer-related deaths are due to melanoma. However, it is believed that these figures are an underestimation of reality, as a considerable number of *in situ* or superficial melanomas are not reported. The risk during life of acquiring an *in situ* or superficial melanoma has considerably increased, at 1 in 30 from 1 in 1500 in 1935.[3]

Epidemiology

Although melanoma has a peak of presentation between the fifth and sixth decades of life,[4] its incidence in people aged between 25 and 29 has increased to become the most common cancer in this age group. Ninety-five percent of cases start on the skin, the remainder originate from the eyes and mucosa (oral, vagina or anus),[5] and from 3% to 10% of people present with metastatic disease with no clinically evident primary lesion.[6]

Diagnostic approach

If a melanoma is suspected a complete physical examination of all of the skin should be made, including the oral and anogenital mucosa, the palms of the hands, and the soles of the feet. There is increasing interest in dermatoscopy[7] as a diagnostic technique in the study of skin tumours, especially pigmented tumours. Advanced digital computed imaging techniques are also used.

Once the pigmented lesions suspicious of melanoma have been detected, an excisional biopsy should be performed (margin of 1–3 mm),[8] ideally with negative margins. On the limbs, it should be directed longitudinally in order not to subsequently alter the sentinel node result.[9]

An appropriate biopsy should enable the Breslow's depth to be assessed, since the extension tests that are required, the final surgical margin, and the patient's prognosis will depend on this Breslow's depth, which is the depth of the melanoma measured in millimetres from the most superficial layer of the epidermis to the deepest point of penetration. The greater the Breslow depth the poorer the patient's prognosis, and the lower the cure rates.

Excisional biopsy is not appropriate on: the palms of the hands, the soles of the feet, the face, fingers, subungual region, outer ear or on very large lesions; and in these cases it is indicated that an incisional biopsy is acceptable, taking the portion which has been clinically shown to be deeper. If the incisional biopsy does not allow accurate microstaging of the patient – which is frequent due to underestimating the thickness of the lesion – it is appropriate to repeat the procedure, and preferably go on to perform an excisional biopsy.[10]

Preoperative staging

When the diagnosis of melanoma has been confirmed, the patient needs to be staged. This is determined by the thickness, the histological features of the melanoma and the locoregional spread of the disease. Staging enables the risk of lymph node and systemic metastasis of the melanoma to be evaluated, which increases according to the thickness of the lesions. The recommendation, according to NCCN guidelines (National Comprehensive Cancer Network), 2014,[10] is that routine testing for spread should not be undertaken in patients with stages I and II, unless the patient presents symptoms or signs of disease distant from the primary tumour. By contrast, they do stress that there should be a complete physical examination of the skin, the regional lymphatic pathways, and of the nodal basin. If there are any doubts on physical examination of the lymph nodes, it is suggested that an ultrasound should be performed of the nodal basin before sentinel node biopsy. If a suspicious lesion is found on ultrasound, this should be confirmed histologically.