

Contoured technique for lentigo maligna*

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Abstract: The surgical approach to lentigo maligna is a challenge to dermatologists, given the difficulty of clinical delimitation of borders. We report here a case of a 69-year-old female patient presenting with brownish macules on her face, since 10 years ago, with histopathological diagnosis of lentigo maligna. The surgical management employed was excision of visible borders with the contoured technique and immediate submission of these borders for histopathological analysis before complete excision of the tumor. This technique is a variant of staged excision, with lower rates of recurrence and acceptable aesthetic results.

Keywords: Hutchinson's Melanotic Freckle; Margin; Melanoma; Recurrence

INTRODUCTION

Lentigo Maligna (LM) is an in situ melanoma. It was described for the first time as “infectious senile freckles” in 1890 by Jonathan Hutchinson, as that was believed to be its origin. LM represents up to 15% of melanomas and up to 26% of head and shoulder melanomas. The surgical approach to it remains a challenge to the surgeon due to difficult clinical delimitation, which makes the standard excision with 5mm margins insufficient and the relapses frequent. We present here a case of LM approached surgically with the contour technique,¹ as an option to the excision with 5mm margin, which allows a complete histopathological evaluation of the margins before the definitive excision of the tumor, with lower rates of recurrence.

CASE REPORT

A 69-year-old female patient, with a brownish macule located in the left malar region for 10 years, with 4 cm of diameter, asymmetric, with irregular and poorly defined borders (Figure 1). At the dermatoscopy a multicomponent global pattern was observed, with different shades of brown, a pseudopigment network, asymmetric follicular openings, rhomboidal structures and multiple dark and bluish-gray spots. Histopathological examination confirmed the clinical suspicion of LM, and it was opted for staged surgical excision² using the contour technique.

First surgical stage: after antisepsis and local anesthetic infiltration with lidocaine 1% associated with a vasoconstrictor, lesion border was delimited 2mm after the observed limit. An incision with a dou-

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FIGURE 1: Brownish macule in left cheek



FIGURE 2: First surgical stage: excision of external margin of lesion. Two scalpel handles were adapted with a 3mm gap between blades

ble-bladed scalpel was performed around the lesion, which required adaptation of two scalpel handles with a 3mm separation between the blades, obtaining a segment of tissue corresponding to the external margin of lesion, followed by primary closure (Figures 2, 3 and 4). Sample was submitted to histopathological analysis.

Second surgical stage: after 15 days and with the confirmation of absence of tumors in the excised margins, complete surgical exeresis of the tumor was performed with an incision 2mm away from previous scar and primary closure (Figure 5).

DISCUSSION

LM is an in situ melanoma, considered by some authors as having a less aggressive behavior.³ Yearly incidence of LM varies among the several countries, depending on the degree of solar exposure. The largest incidence of LM is within the most advanced age groups, in which comorbidities are more common, and usually in noble photoexposed areas such as the face.⁴ Clinically, the phase of prolonged radial growth is remarkable. Surgical excision with 5mm margins is the standard treatment, with relapses varying between 0.5% to 33%.^{5,6,7,8} Therefore, a large proportion of cases would need to be excised with a wider margin. However, less invasive methods have been described for its treatment. In cryosurgery there is no possibility of histopathological analysis and it presents relapses of up to 40%.⁵ Aiming to diminish relapse rates with the standard excision, techniques for controlling the margins have been described, in paraffin-embedded material as an alternative to Mohs micrographic surgery (MMS). In the latter, differentiation between atypical melanocytes and keratinocytes is difficult. The techniques are several; wide local excision, surgical excision in stages and its variants;



FIGURE 3: Excision of external margin of lesion. Submitted to histopathological analysis



FIGURE 4: Primary closure

square technique, perimeter, contour, "spaghetti" technique and Mohs micrographic surgery, and in all of them the surgeon must worry about saving the most amount of tissue possible.^{2,9,8}



FIGURE 5: Second surgical stage: after 15 days, with confirmation of negative margins, complete excision of tumor with primary closure



FIGURE 6: Postoperative after 3 months

Surgical excision in stages was described for the first time by Dhawan et al. in 1990 as a variant of Mohs micrographic surgery or “slow Mohs”.² Johnson et al.⁷ described the square technique in which the square-shaped surgical margin is excised, the surgical defect is closed and the material analyzed. If any segment of the margin is positive for the tumor, a new excision is performed. The central region of the tumor will only be excised when the margins are negative. Mahoney et al.¹⁰ reported the perimeter technique in which the surgical margin is obtained by drawing the most adequate geometrical figure for the clinical form of the lesion. It was modified by Clark et al.¹ and named contour technique for it prefers the drawing of margins of

the lesion following its clinical form and avoiding the excision of non-affected tissue. However, the disadvantages of this technique are related to the uncertainty as to whether there is an invasive component of the first approach, the interval between surgical stages and the fact that the tumor is not dealt with in the first surgery. Relapses with these techniques decrease significantly, reaching up to 7%.²⁸ Short postsurgical follow-up stages do not allow concluding which one of them offers the lowest rates of recurrence. We opted for the contour technique with primary closure, due to the considerable size of the lesion, low rates described for this technique and the possibility of an acceptable aesthetic result (Figure 6). □

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