

10 Lentigo maligna

Lentigo maligna (Hutchinson's melanotic freckle) is a traditional term for atypical pigmented macular lesions on severely sun damaged skin, usually on the face of elderly patients. The histological diagnosis of lesions clinically suspicious of lentigo maligna may range from solar lentigo to *in-situ* melanoma (lentigo maligna pattern) or invasive melanoma (lentigo maligna melanoma).^{1,2} While some authors regard lentigo maligna as referring only to melanoma *in situ*,² others distinguish between different phases of lentigo maligna as, respectively, a melanoma precursor and *in situ* melanoma.¹ The recommendations in this chapter refer to the treatment of both those lesions in which *in-situ* melanoma has been histologically confirmed and those lesions in which histological examination has shown junctional melanocytic proliferation lacking the criteria for *in-situ* melanoma.

The diagnosis of lentigo maligna and lentigo maligna melanoma can be suggested by clinical and dermoscopic features, however, biopsy and histological assessment is required to establish a definitive diagnosis³ (see Chapter 5 *Clinical Diagnosis*). It is important that the potentially heterogeneous nature of the melanocytic proliferation in lentigo maligna is recognised and that any form of subtotal (shave, punch or incisional) biopsy may fail to include representative lesional tissue or identify a dermal invasive malignant component (lentigo maligna melanoma). For appropriate biopsy techniques see Chapter 6 *Biopsy*.

Clinical factors, including the age at presentation of the lesion, the rate of clinical change, identifiable changes in adjacent skin, anatomical site, and the patient's life expectancy and comorbidities, will all potentially impact on the way these lesions are managed clinically. When the clinical diagnosis of lentigo maligna is confirmed as *in-situ* melanoma by histopathological examination, complete excision is recommended. The recommended clinical margin of 5mm for melanoma *in situ* is an arbitrary figure which in diagnostically difficult cases may prove to be inadequate due to microscopic extension of the tumour to a lateral margin. A 5mm histological margin, however, should be adequate, but lesser margins may be acceptable according to certain clinical circumstances e.g. anatomical site. If invasive melanoma has occurred in the lentigo maligna, the recommended margins of excision are the same as those for other subtypes of invasive primary melanoma (refer to Chapter 11 *Treatment of Primary Melanoma*). Lentigo maligna melanoma on the face may not always be resectable with the recommended 1cm margin for technical or clinical reasons and a lesser margin may be acceptable. In these circumstances, the opinion of an appropriate reconstructive surgeon may be indicated to minimise the compromise between excision margins and cosmetic deformity.

Radiotherapy represents another potential treatment option for lentigo maligna, particularly where surgical margins are inadequate or surgery is not possible. No data from prospective or randomised trials on the efficacy of radiotherapy in the treatment of lentigo maligna are currently available and interpretation of the outcomes from the available literature is hampered by the heterogeneity of the treatments described and the relatively short

follow-up periods in these studies. However, they indicate that this is a convenient and well-tolerated therapy with a modest recurrence rate. Therefore, superficial x-rays or electron therapy can be considered as an alternative treatment of lentigo maligna for elderly or frail patients, particularly those with lesions that would require relatively extensive resections and complex reconstructions.⁴⁻⁶ Cryotherapy has been used in clinical situations where there is impediment to surgery or significant comorbidity.⁶ Cryotherapy is a destructive technique and it can be difficult to ensure effective removal of all melanotic cells at the site. The treatment should be employed with great caution.

To date, topical treatment modalities have not been satisfactorily evaluated and are associated with the hazard of being utilised in the management of lesions with an unrecognised component of dermal invasive melanoma.

Lentigo malignas on the face that are not suspicious of containing dermal invasive melanoma, and which cannot be definitively excised or treated with radiotherapy because of comorbidities, complexity of wound repair or patient age, may be considered for careful monitoring utilising macroscopic and dermoscopic photography. Biopsy is warranted if there is apparent change in size or pigmentation.

Evidence summary	Level	Reference
There are no prospective studies or randomised controlled trials available to form the basis of any recommendations for the management of lentigo maligna	IV	6
A biopsy is the best means of establishing the diagnosis of lentigo maligna, though interpretation of the histopathology may be difficult	IV	3, 6
Lentigo maligna can be treated by surgical excision with low rates of recurrence and is the treatment of choice for lentigo maligna melanoma	IV	6
Radiotherapy is useful in the management of lentigo maligna where surgical margins are inadequate or surgery is not possible	IV	3-6
Cryotherapy may be useful in the management of melanoma maligna where surgery is not possible or patient comorbidities are severe	IV	6
The evidence for the use of topical treatments for the treatment of lentigo maligna is currently inadequate	IV	6

Recommendations	Grade
1. Biopsy is indicated for changing pigmented lesions on the face	C
2. Where lentigo maligna is histologically confirmed, complete excision is the preferred management	C
3. Radiotherapy is an alternative treatment option for patients where surgical excision is problematic or best avoided	C
4. Cryotherapy is a form of treatment that may occasionally be useful in patients with severe comorbidities or in those in whom surgery is not a possible option	D
5. Topical treatment modalities for lentigo maligna cannot be recommended at this time	C

Key point

- For some patients with lentigo maligna, observation for change utilising macroscopic and dermoscopic photography and measurement is an acceptable alternative to immediate excision, with a biopsy indicated for changing lesions

References

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