POINT OF TECHNIQUE

The staggered ellipse

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SUMMARY. An incision is described in which the two ends of an elliptical excision are displaced. This can be used in two situations; in the reduction in length of one side of a digit and in the excision of two lesions close together. © 2000 The British Association of Plastic Surgeons

If the design of an elliptical excision is divided transversely, the two halves can be displaced sideways in opposite directions, so that after excision of the two components, closure can be completed in a z-shape. This can be used as a means of shortening, for example on the side of a digit, or to excise two lesions close together without making an excessively long ellipse.

Shortening one side of a digit

Clinodactyly of a finger is best treated by opening wedge osteotomy with lengthening of the short side of the digit.1 When the condition affects a triphalangeal thumb or a toe, it is more appropriate to shorten the long side of the digit by closing wedge osteotomy. In order to avoid irregularity or dog-ear formation in the skin, the approach can be designed so that two hemi-ellipses are excised at each end of a longitudinal incision (Fig. 1). After the skeletal correction, closure of the two end triangles and sliding of the longitudinal incisions gives good access and a well placed z-scar. This method has been used effectively in two cases of clinodactyly of toes, and two triphalangeal thumbs.

Excision of two lesions close together

If two lesions in a confined, aesthetically important area are close together and need excision, a single ellipse would leave an excessively long scar with the risk of dog-ear formation. By excising each lesion in a hemi-ellipse offset from the other (Fig. 2), the minimum area of normal skin is removed, and easy closure of a satisfactory z-shaped wound results in a well placed inconspicuous scar. Four pairs of lesions have been excised in this way with good results.

Discussion

The staggered ellipses can be displaced any reasonable distance, depending on the local topography. In effect the two halves of the ellipse are Burow triangles.2 Although the final result of a ‘cut-as-you-go’ approach employing Burow triangles might be the same, this method is quick both in planning and execution, and easy to apply to suitable situations.

References


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Figure 1—(A) Clinodactyly of the second toe. (B) Staggered ellipse incision designed on the long medial side of the toe. The two triangles will be excised after closing wedge osteotomy. (C) After excision of the ellipses and suture of the wounds. (D) The healed scar. (E) The corrected deformity.
Figure 2—(A) Two cellular naevi on the upper lip, close enough to make a single ellipse too long. A staggered ellipse has been designed. (B) The wound after excision and of the naevi. (C) The sutured wound. Despite the shortness of the scar, dog-ears are not a problem with this method.