

**Allergic contact dermatitis
from Mastisol mistaken
for cellulitis**

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Fig. 1. Acute allergic contact dermatitis from mastisol resembling cellulitis.

A 59-year-old male self-employed joiner presented with a 2-day history of a red, hot, pruritic eruption on the left side of the neck 9 days following surgery for excision of a basal cell carcinoma from the same site. The sutures and standard pressure dressing had been removed after 7 days. On examination, a circumscribed, tumid, urticated plaque was evident which was a non-tender. Initially, a wound infection with associated surrounding erysipelas was suspected and oral flucloxacillin 250 mg qds was prescribed; however, after 2 days, macular erythema continued to extend to his upper chest and to the posterior aspect of his neck (Fig. 1). Examination of the scar itself showed that it was opposed to no dehiscence, no extravasation, bleeding or tenderness and the patient was systemically well, which led to contact dermatitis being considered as a possible diagnosis. In addition to the antibiotics, treatment with a potent topical steroid was also started (Fucibet[®] cream bd, Leo Laboratories Limited, Dublin, Ireland). Postoperatively, the area had been dressed with a pressure dressing consisting of Polyfax[®] ointment (PLIVA Pharma Ltd, Petersfield, UK), non-adhesive dressing, Mepore[®] (Mölnlycke Health Care, Göteborg, Sweden) and as an adhesive, Mastisol[®] solution (Ferndale Laboratories, Ferndale, MI, USA). It was only when the dressing was removed that the appearance in his neck was noticed.

4 weeks after resolution of the erythema, the patient was patch tested and a strong positive reaction (++) to Mastisol[®] was shown. Further patch testing for the individual com-

ponents of Mastisol[®] was carried out 6 months later. The results are shown below:

	2 days	4 days
Gum mastic 0.1%	NR	+
Gum mastic 1%	++	+
Gum mastic 10%	++	++
Storax (balsam) 2%	NR	+
Alcohol 10% in water	NR	NR

NR, No reaction

Discussion

Gum mastic is a natural resin from the *Pistacia lentiscus* tree, which grows only in parts of Chios Island in Greece (1). Mastisol[®] has been reported to have a lower incidence of postoperative contact dermatitis than the previously favoured adhesive Compound Tincture of Benzoin (2,3), however there are a small number of reports that show mastic as a cause of allergic contact dermatitis (1,4). The patch test results in this case show a clear reaction to Mastisol[®] and more specifically the gum mastic and storax ingredients in Mastisol[®]. The patient does not appear to have had any previous exposure to Mastisol[®], so direct sensitization is possible. It is worth noting that styrax is also found in CTB, so both mastisol and CTB should be avoided in future in surgical dressings for this patient.

Allergic contact dermatitis should be considered in the differential diagnosis of cellulitis after skin surgery when Mastisol[®] solution has been used to aid adherence of the dressing. A detailed history and examination of

the wound may elucidate the appropriate diagnosis, which would reduce unnecessary patient anxiety, incorrect treatment and inappropriate hospital outpatient appointments. Specifically, the clinical clues in this case were the timing of onset of symptoms, the sharp delineation of erythema to the mastisol application, the marked pruritus, lack of tenderness and clean, closed surgical scar.

References

1. Wakelin S H. Allergic contact dermatitis from mastic in compound mastic paint. *Contact Dermatitis* 2001; 45: 118.
2. Lesesne C B. The postoperative use of wound adhesives. Gum Mastic versus Benzoin, USP. *J Dermatol Surg Oncol* 1992; 18: 990.
3. James W D, White S W, Yanklowitz B. Allergic contact dermatitis to compound tincture of Benzoin. *J Am Acad Dermatol* 1984; 11: 847-850.
4. Mabrie D C, Papel I D. An unexpected occurrence of acute contact dermatitis during rhinoplasty. *Arch Facial Plast Surg* 1999; 1: 320-321.

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