

# LOCAL SENSITIZATION OF THE SKIN TO PARAFFIN GAUZE DRESSING

(CURATIO CARBASI PARAFFINI B.P.C.)

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This small contribution is submitted to support the suggestion put forward by Ridley<sup>1</sup> that the inclusion of Peruvian balsam in the official paraffin gauze dressing is hardly justifiable. The paraffin gauze dressing under discussion goes by several proprietary names, such as Tulle Gras, Nonad Tulle, Jelonet, and Optrex Tulle. It can easily be prepared by the method described by McIndoe.<sup>2</sup> The fact that this official dressing contains 1.25% of balsam of Peru suggests that a pharmaceutical

property is necessary for the preparation. The alleged virtues of the balsam were highly priced in the beginning of its long history. Today its value is much less but it is still widely used in the western world and most frequently as a topical dressing or application for superficial conditions such as wounds and ulcers, skin affections like scabies, eczema, alopecia, pruritus, and when indicated for the stimulation of epithelial growth. For long it has been used as an inhalant

for the treatment of upper respiratory tract disorders. In Martindale's Pharmacopoeia<sup>3</sup> there is a brief admonition, without explanation, 'to test for albumen in the urine before and during treatment'; the reason for this warning remains unknown to me.

#### CASE REPORT

In May of this year a young woman was deeply bitten over the front of the leg by a bull-terrier dog. The injured area of skin was cleansed with antiseptic and prophylactic antitetanus serum was injected. Two days later a precautionary injection of procaine penicillin was given because of possible damage to the tibial periosteum. Débridement was not carried out because of the strong tendency for dog-bites to suppurate, but a dressing of Nonad Tulle was applied. The patient was ambulant 1 week later but the paraffin gauze dressing to the injured leg was continued for another week. Inspection at this time revealed that the skin under the Nonad Tulle was slightly swollen, erythematous and covered with a fine vesiculation. This skin change was so exactly limited by the gauze dressing that the impression that the Nonad Tulle had provoked a reaction was inescapable.

It was uncertain to what ingredient of the paraffin gauze dressing the skin had become sensitized. Opportunely, Ridley's memorandum<sup>1</sup> came to my notice. In this he proved that the agent in the Nonad Tulle most likely to be responsible for the reaction of the skin was the balsam of Peru. He reported a similar reaction to Tulle Gras in 2 patients suffering from a hypostatic eczema of the legs which was markedly aggravated by the balsam. Patch tests proved strongly positive. Ridley says that when such an untoward reaction happens, however rarely, it is reasonable to doubt whether the continued incorporation of the balsam in the dressing can be justified, the beneficial effect being so slight. In the instance reported here the sensitization occurred in skin which had been normal excepting the points of trauma. In my case a patch test was distinctly positive, the control being *paraffinum molle album*.

The meagre reports on this drawback to the use of Peruvian balsam disclose that Andrews<sup>4</sup> recorded a contact dermatitis

following its use as a perfume in a toilet preparation and Engelhardt in 1880, cited by Alexander<sup>5</sup>, refers to its sensitizing property. Alexander himself regards it as a strong contactant capable of sensitizing 10% of patients should it be applied freely. Mention is also made by Schwartz, Tulipan, and Peck<sup>6</sup> quoted by Ridley, of the balsam as a skin irritant. This kind of paraffin gauze dressing is so very widely used in in-patient and out-patient casualty work that the frequency of the sensitization reactions, which delay cutaneous healing, is surely not adequately reflected in published memoranda. The purpose of this paper is to try to turn Ridley's suggestion into a plea that the balsam of Peru be excluded from the official preparation *curatio carbasi paraffini* and, if it be thought necessary, that some other proven non-sensitizing substance be found to substitute for it.

#### SUMMARY

Evidence is presented to support a recommendation that the balsam of Peru included in the official paraffin gauze dressing in the B. P. C. does not appear to justify its inclusion because of its potential harmful sensitizing effect.

#### REFERENCES

1. Ridley, C. M. (1957): *Brit. Med. J.*, **1**, 1224.
2. McIndoe, A. H. (1940): *Proc. Roy. Soc. Med.*, **34**, 62.
3. Martindale (1941): *The Extra Pharmacopoeia*, 22nd ed., **1**, 263.
4. Andrews, G. C. (1954): *Diseases of the Skin*, p. 116. Philadelphia: Saunders.
5. Alexander, H. L. (1955): *Reactions with Drug Therapy*, p. 250. Philadelphia: Saunders.
6. Schwartz, L., Tulipan, L. and Peck, S. M. (1947), cited by Ridley.<sup>1</sup>