

New York Section.

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Supplementary Note on Skin Sensitization with Simple Chemical Compounds.

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The following observations may be recorded as an addendum to the note¹ in a past issue of this journal. Further experiments were carried out with dinitrochlorbenzene* ($\text{Cl}:\text{NO}_2:\text{NO}_2 = 1:2:4$) which is known to be a frequent cause of trade eczema.² The reactions observed with this compound were rather stronger than those with nitroso-dimethylaniline. For instance, in one experiment lesions approximately 7 to 15 mm. in diameter were obtained after 18 intracutaneous injections on the back of 1/400 mg.† each, 2 a week for 9 weeks, when tested with the same concentration by intracutaneous injection on the side, one week after the last injection, and read on the following day.‡ Reactions were noticed during the treatment, beginning with the third, fourth or later injections, and reaching a maximum after about 12 injections. Some sensitization appeared in practically all the guinea pigs injected, and the strongest reactions showed necrotic centers. In a second experiment the effects were weaker than in the above, although definite, when tested one week after the fourteenth injection. Another batch receiving 10 daily injections and tested a week later exhibited strong reactions with livid centers in 3 animals and weaker reactions in the remaining 2. Two similar experiments yielded less prominent but positive effects.

¹ Landsteiner, K., and Jacobs, J., *PROC. SOC. EXP. BIOL. AND MED.*, 1934, **31**, 790.

² Hamilton, A., *Industrial Poisons in the United States*, Macmillan, 1925, p. 500.

* Previously inaccurately designated as 1:2:4 dinitrochlorbenzene.

† Such small quantities could also be used for the treatment with nitroso-dimethylaniline.

‡ Distinct reactions were also observed on gently rubbing a drop of a 1% solution of dinitrochlorbenzene in olive oil on the skin.

In cross tests with the 2 substances named a sharp specificity was evident since guinea pigs treated with dinitrochlorbenzene gave no distinct reaction to nitroso-dimethylaniline, and vice versa, as exemplified in Table I.

TABLE I.
Guinea pigs sensitized to dinitrochlorbenzene or p-nitroso-dimethylaniline, and tested with 1/400 mg. of the former and 1/50 mg. of the latter by intracutaneous injection of 0.1 cc. of solutions of the substances in 1% saline. § The figures give the diameters in millimeters.

| Treated with: | | Tested with: | |
|-------------------------|---|---|--|
| Dinitrochlorbenzene | 1 | Dinitrochlorbenzene 10.5, pale pink, elevated, livid center 3 | Nitroso-dimethylaniline almost negative |
| | 2 | 11, pink, elevated, slightly livid center | 3.5, pale pink, elevated |
| Nitroso-dimethylaniline | 3 | almost negative | 8.5, pale pink, slightly elevated |
| | 4 | " " | 11, pink, elevated |

The animals treated with p-nitroso-dimethylaniline did not give definite reactions with dimethylaniline, nitrosobenzene, or p-nitrosophenol, nor did the animals treated with dinitrochlorbenzene react to 2:4 dinitrophenol, o- or p-nitrochlorbenzene, m-dinitrobenzene, or picric acid.

Preliminary experiments with 2:4 dinitrophenol, which has been reported to produce hypersensitiveness in human beings,³ gave suggestive but not quite conclusive results.

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Transplantation of Taste Organs in Adult *Triturus Viridescens*.

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A study of the development of taste organs in the living condition in embryos and larvae of *Amblystoma punctatum*¹ has shown a considerable degree of independence of the organs with respect to their normal (gustatory) nerve fibers. In the present studies an attempt was made to examine the relationship between the taste or-

§ An alcoholic solution of dinitrochlorbenzene was diluted with saline.

³ Frumess, G. M., *J. Am. Med. Assn.*, 1934, **102**, 1219; Anderson, H. H., Reed, A. C., and Emerson, G. A., *J. Am. Med. Assn.*, 1933, **101**, 1053.

¹ Stone, L. S., *Proc. Soc. Exp. Biol. and Med.*, 1933, **30**, 1256.