

## FLEA BITES

### PREVENTION AND TREATMENT WITH THIAMIN CHLORIDE

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During certain seasons, fleas are very prevalent in southern California. Lack of rain increases the incident of human distress from flea bites. These insects are very small and very difficult to locate once they have attacked an individual. The bites are confined mostly to areas where the clothing fits snugly. The lesions are small, raised and papular. They occur in groups and sometimes have a small bleb. They vary in size from a split pea to a coffee bean. The itching produced is very severe; the patient scratches the lesions and frequently causes infection of an impetiginous character. A person who is susceptible to fleas seems unable to avoid them. The fleas will attack some member in a family and entirely ignore others. Once a flea gets on a person it seems impossible to get rid of it until that person has produced some immunity after which the flea will leave.

Why do fleas attack some people and stay away from others? Shannon<sup>1</sup> reported the use of large doses of thiamin chloride in the treatment of people who were afflicted by mosquito bites. He stated that after giving thiamin chloride to such patients, the mosquitoes were apparently repelled. Using an ointment containing thiamin chloride did not seem to be of value. He also felt that large doses of thiamin chloride, either hypodermically, or by mouth, relieved the pruritus in other conditions, such as chicken-pox, urticaria and scabies.

If thiamin chloride acted as a repellent to the mosquito, it was apparent that thiamin chloride deficiency might explain why a flea would attack certain people and not attack others. A large number of patients seen by me both in private practice and in the Well-Baby Clinic were given large doses of thiamin chloride for the treatment and prevention of flea bites. I know of no patient who did not respond and only a very small percentage suffered from recurrences. For small infants, 10 mgms. three times a day for three days, and then 10 mgms. daily for several weeks appeared to be sufficient. In the case of a run-about child, two 10 mgm. tablets, given three times a day for three days, followed by a smaller dose,

<sup>1</sup>Shannon, Wm. Ray: Thiamin Chloride, as Aid in the Solution of the Mosquito Problem. *Minnesota Med.*, 26:799-802. Sept. 1943.

and in adults, four 10 mgm. tablets given three times daily for three days and followed by a smaller daily dose apparently gave complete protection against flea bites. The protection against flea bites by the use of thiamin chloride varies as to time. Some patients have had recurrences after several months but have had relief after taking additional thiamin chloride.

One mother was not only successful in treating herself and children, but decided to give thiamin chloride to her dog. She reported she had not found a flea on the dog following thiamin chloride therapy.

The object of reporting these findings is to encourage other investigators to try this method as a relief for the unfortunate person who suffers from the California flea.

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CONTROL OF HOSPITAL INFECTION OF WOUNDS. (British Journal of Surgery, Bristol, January, 1945.)—Williams and his associates undertook a survey in order to extend the observations of the effects of a revised dressing technic on the incidence of added hospital infection. As in previous investigations, the survey was made in terms of *Streptococcus pyogenes*, but these observations differ from them in that the authors examined wounds and personnel for the presence of *Staphylococcus aureus* as well and tried to assess the magnitude of the reservoirs of both these infecting organisms in the environment. During a control observation period of ten weeks the added infection rate per wound-week at risk in a surgical ward dealing mainly with septic wounds of the hands was 13.9 per cent for *Streptococcus pyogenes* and 100 per cent for *Staphylococcus aureus*. During a test period of twenty-six weeks, after the adoption of a revised wound dressing technic, the added infection rates were 0.75 per cent for *Streptococcus pyogenes* and 17.8 per cent for *Staphylococcus aureus*. The carrier and infection rates for the two organisms in the noses, throats and wounds of the patients and in the noses and throats of the nursing staff were similar in both periods. The number of wound weeks at risk was higher in the test than in the control period. The reduction in added infection may therefore be attributed to the revision of the dressing technic.—*Journal A. M. A.*