

Chemical Burns by Calcium Polysulfide –Measures for Prevention

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Calcium polysulfide, used in early spring as a spray to control insects and fungi, is indispensable for fruit growers. However, this chemical sometimes causes serious burns, as it is notably high in alkalinity.

In early March, a man in his late fifties was spraying this insecticide over his garden trees. With a lack of any background knowledge, he did not wear waterproof protective gear. He carried on his garden work, even though the chemical soaked through his pants. In the evening, he had sharp pains on the posterior surface of each leg. At the time of his first visit to our hospital, he had third degree chemical burns. Necrosis was evident. Debridement was performed on Day 6. Ulceration was seen from dermis to panniculus adiposus. A skin graft was applied on Day 20. The patient was treated as an inpatient for one month.

Clinical case reports on this type of burn were cited nearly one per year in Japanese medical study database. More reports were available in 2000s than 1990s. Studies, published abroad showed that these burns have not decreased in recent decades.

For this type of burn, study priority should be given to preventive measures. Beside general precautions against pesticide poisoning, it is necessary to emphasize the need to (1) wear waterproof protective gear and (2) wash the body immediately after exposure to liquid chemicals. We prepared a brochure as a guideline for prevention.

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