Reflex Sympathetic Dystrophy Thermography in Diagnosis: Psychiatric Considerations

By ARTHUR ECKER, M.D.

To determine whether some patients complaining of chronic unexplained pain had received inappropriate psychiatric diagnosis, we used thermography. This statement derives from recent clinical experience in which 31 of 133 chronic pain patients were discovered to have reflex sympathetic dystrophy confirmed by thermography. Many were believed to suffer psychiatric disorders.

Reflex sympathetic dystrophy (RSD) is an uncommon regional disorder of the limb marked by both burning pain and decreased or increased cutaneous blood flow. The clinical aspects of RSD were described in 1813 by Denman when diagnosing a soldier who had sustained a nerve injury from a musket ball wound of the arm.

I found him laboring under excessive pain, which the largest opiate could not assuage. The little sleep he had, if it could be called such, was disturbed by frightful dreams and starting. He described the sensation of pain as beginning at the extremities of the thumb and all the fingers, except the little one, and extending up the arm to the part wounded. It was of a burning nature, he said, and so violent as to cause continual perspiration from his face. His agonies, he observed, were insufferable, depriving him of sleep, and the enjoyment of his food, for which he had sometimes an appetite. He declared himself incapable of enduring it longer without some relief, and earnestly requested the removal of the arm.

An amputation was carried out with complete relief.

In 1864 Paget described the glossy skin associated with causalgia. Glossy fingers appear to be a sign of peculiarly impaired nutrition and circulation due to injury of the nerve. They are not observed in all cases of injured nerves but are always associated with distressing and hardly manageable pain and dis-

Even today, reflex sympathetic dystrophy is misdiagnosed as psychogenic until the condition is advanced.

ability. In well-marked cases, the fingers which are affected are usually tapering, smooth, hairless, almost void of wrinkles, glossy, pink or ruddy or blotched as if with permanent chilblains. They are also very painful, especially on motion and pain often extends from them up the arm. In the same year appeared the classic treatise of Mitchell, Moorehouse, and Keen in which they named this condition resulting from nerve injuries, causalgia (Greek—burning pain).

It is a form of suffering as yet undescribed, and so frequent and terrible as to demand from us the fullest description. The terms used here may seem strong to those who have not encountered these cases; but no one who has seen them will think that, as regards some of them, it would be possible to overstate their most wretched condition.

The seat of burning pain is very various; but it never attacks the trunk, rarely the arm or thigh, and not often the forearm or leg. Its favorite site is the foot or hand. In these parts, it is to be found most often where the nutritive changes are met with; that is to say, in the palm of the hand or palmar surface of the fingers, and in the dorsum of the foot; scarcely ever on the sole of the foot or the back of the hand. Where it first existed in the whole foot or hand, it always remained last in the parts referred to, as its favorite sites.

The great mass of sufferers describe this pain as superficial but others said it was also in the joints.