

# A Case of Erythremalgia of the Extremities

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R.S. male, 42 years, was under treatment for rheumatic heart failure and residual embolic hemiplegia. One day he complained that some time after he had gone to bed, he felt a burning pain in the soles and hands, which kept him awake for more than two hours and then gradually subsided. At that time no importance was attached to the complaint, similar statements being a part of the chronic invalid's daily report. I advised the patient to warm his feet and hands if the pain returned. Two weeks later I saw the patient again and what he had to tell was most interesting. Three nights previously the pain in the soles and hands had returned and, acting on my advice, he warmed himself by means of a hot water bottle and gloves. The effect was disastrous. The pain became "intolerable", like "mustard" and the extremities reddish. Acting on instinct he got out of bed, put his hands in cold water and then walked about the room bare footed. Relief was immediate. By this description the patient made the diagnosis of Erythremalgia comparatively easy.

On one occasion I saw the patient during the attack. The hands and feet were markedly red and swollen and the skin felt warmer than normal. The radial and dorsalis pedis arteries had bounding pulses. On elevation the parts remained red. Unfortunately, oscillometric recordings were not carried out. According to Wright, they are either normal or high. Since that time (16 months) the episodes recurred four times.

## *Discussion.*

Erythremalgic was previously known as Erythromelalgia from the Greek erythros (red), melos (extremities), and algos

(pain). This term is not exact as it does not take into account the importance of heat. Erythremalgia is derived from erythros (red), therme (heat) and algos (pain), and hence includes the three important components of the syndrome. Therefore, the condition is characterised by burning distress involving any of the extremities, which is inseparably linked with and entirely dependent on, elevation of the temperature of the skin of the affected part (Allen).

Erythremalgia occurs rarely. According to Landis its incidence at the Mayo Clinic is 1 in 40,000 general patients and in 0.5% of patients with peripheral vascular disease.

The first known description of the syndrome is usually attributed, rightly or wrongly, to Weir Mitchell in 1872 who records the case of a sailor, aged 40 who, after an African fever began to have "dull heavy pains at first, soon after in the right foot. The whole foot was said to be aching and burning, but above the ankle there was neither swelling, pain nor flushing. As the weather drew cool, he got relief, but no treatment seemed to benefit him".

The condition occurs in middle-aged men and women and is rarely seen in young people. Erythremalgia occurs in two forms:

1. Primary or Idiopathic.
2. Secondary, which may occur in a number of conditions, (Polycythaemia vera, Diabetes and Gout) although the underlying mechanism is seldom clear. Little is known of the pathological physiology of the syndrome — several factors seem to contribute to the condition.

Pain occurs when the temperature of

the affected extremity is increased. This is the most important disturbance. The temperature at which pain occurs varies but usually varies between 32 and 36 degrees Centigrade. Sir Thomas Lewis' description, the "critical point", is informative as it indicates the thermal point at which pain occurs. The increased temperature is usually caused by vasodilation, the cause of which is as yet unknown. The basic factor might be what Lewis has termed the "sensitive state of the skin". Today we might call it "psychosomatic" or "allergic".

With regard to treatment this is unsa-

tisfactory as was originally pointed out by Mitchell. No explanation is forthcoming for the fact that aspirin affords marked relief. It was used in 10 gr. doses with benefit in the case under review. Symptomatic relief may be obtained by avoiding procedures that produce vasodilation in the extremities such as exposure of the feet to warmth. If no benefit is obtained by these simple remedies, it may be necessary to resort to surgical measures which include section, crushing or injection of alcohol into the peripheral nerves which supply the extremities.

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*References:*

1. Allen, E.A. in Vol. 11 of Stroud's "Diagnosis and Treatment of Cardiovascular Disease" Philadelphia, 1946.
  2. Wright, Irving. "Vascular Disease". Chicago, 1949.
  3. Lewis, Sir Thomas. "Vascular Disorders of the Limbs". London, 1936.
  4. Redisch, Walter, quoted in the "Year Book of Medicine" Chicago, 1950.
  5. Michelazzo, M. "Cardiopatologia". Torino, 1947.
  6. C'endening and Hashinger. "Methods of Diagnosis" St. Louis, 1947.
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