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皮膚と発汗

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Skin and Sweating

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Abstract

Sweat glands are subdivided into eccrine and apocrine glands. Generalized eccrine sweating is the response to an increased body temperature during physical exercise and thermal stress by enabling evaporative heat loss. It is the most effective means by which human regulate the body temperature. Humans have 2-5 million eccrine glands distributed over nearly the entire body surface. Sweat glands are most numerous on the sole of the foot. Sweating induced by emotional stress is usually confined to the palms and soles. Eccrine sweat glands respond to cholinergic agents. In general, males perspire more profusely than females. The sweat rate in a given area of the skin is determined by the number of active glands. The apocrine sweat glands of humans respond to emotive stimuli only after puberty. They have some sexual function, which may now be vestigial. The apocrine glands are controlled by adrenergic nerves. The characteristics of sweating are not well known and recognized. Palmoplantar hyperhidrosis is defined as excess sweating on the palms and soles. The treatment methods are recognized into five application methods: 1) aluminum chloride, by external application; 2) anti-cholinergic drugs and tranquilizers, given internally; 3) intracutaneous injection of botulinum A toxin; 4) iontophoresis treatment and 5) sympathectomy, by surgical operation.

Key words: skin, sweating, eccrine gland, apocrine gland, palmoplantar hyperhidrosis.