HYPERHIDROSIS



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INTRODUCTION

Sweat glands play an important role in maintaining the body temperature within a certain range. In general, hyperhidrosis is a disorder of the eccrine sweat glands characterized by excessive sweating. Hyperhidrosis is classified into two groups: primary and secondary hyperhidrosis. While the former is just located in the face, hands, axillae, and feet, the latter occurs as a result of many metabolic diseases, such as diabetes mellitus, hyperthyroidism, and chronical infectious diseases, and side effects of some medications. To be able to define about excessive sweating, there should usually be a visible sweating including even sweat dripping from the hand and axillae [1]. In our clinic, in order to be objective, excessive sweating is described as "sweating enough to wet a napkin". Equally, the patient's history is also very important. Notably, the family history and the time of complaints, mostly years, are helpful in diagnosing the primary hyperhidrosis. For the management, various treatment modalities are being used. Primarily, thoracal sympathectomy was defined utilizing a posterior approach more than 100 years ago [2]. The development of surgical techniques for thoracal sympathectomy was initially from axillary thoracotomy to multi-port thoracoscopy and finally single-port thoracoscopy.

ANATOMY AND PHYSIOLOGY

Sweat secretion is regulated by both the central nervous system and the autonomic nervous system [3]. The hypothalamus has a major role in the thermoregulatory system. Hypothalamus performs this task through the reticular formation, amygdala, hippocampus, limbic system, and cortex [4]. Through the connections between these structures, the hypothalamus regulates the different neuronal activities. Thermoregulatory system is activated in order to maintain a normal range of body temperature providing homeostasis in case of warm air, physical exercise, or fever caused by infection. Similarly, sweating occurs as a physiological response to prevent sudden rise in body temperature. The secretion of sweat is mainly the function of eccrine sweat glands. In the human body, there are 2-5 million sweat glands found on the skin. The highest sweat gland density is found in the palms, with 400-1000 per square centimeter. This is induced by sympathetic cholinergic nerve impulses. There are two types of eccrine glands. One responds to thermal stimuli, whereas the other responds to emotional stimuli. The palms of the hand and soles of the feet respond to both stimuli. The eccrine glands' density is approximately 130 per square centimeter in axillae, which is lower than the mean den-

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Hemothorax

While dissecting or cutting the sympathetic chain, the intercostal artery, intercostal vein, azygos vein, and subclavian artery may be injured. Generally, bleedings can be controlled by electrocautery, clipping, or tamponade. If bleeding does not stop or massive bleeding occurs, thoracotomy is required.

Rare complications

The very rare complications reported include pleural effusion, atelectasis, chylothorax, severe pain, intraoperative cardiac arrest, and bradycardia [8].

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