



Hyperhidrosis

DR GEHANE

What is Hyperhidrosis?

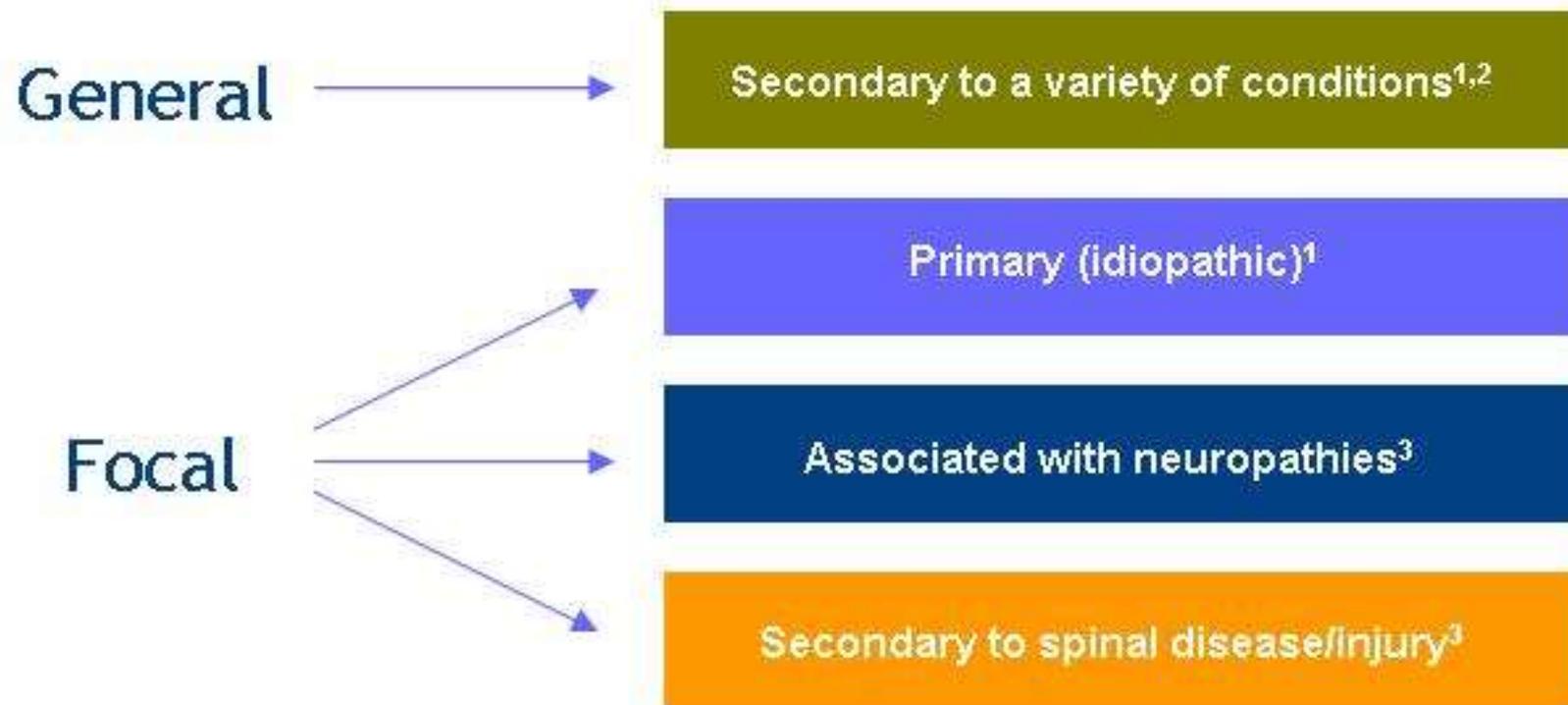


- ◆ Sweating that is more than required to maintain normal thermal regulation

Sweating Nomenclature

- ◆ Areas: Focal, regional, generalized
- ◆ Symmetry: Symmetric or asymmetric
- ◆ Classification: Primary vs. secondary
- ◆ Type of sweating: Anhidrosis, euhydrosis, hyperhidrosis

Hyperhidrosis



1. Stolman LP. *Dermatol Clin.* 1998;16:863-869. 2. Atkins JL, Butler PE. *Plast Reconstr Surg.* 2002;110:222-228.
3. Sato K et al. *J Am Acad Dermatol.* 1989;20:713-726

Causes of Generalized Hyperhidrosis

Usually secondary in nature

- ◆ Drugs, toxins, substance abuse
- ◆ Cardiovascular disorders
- ◆ Respiratory failure
- ◆ Infections
- ◆ Malignancies
 - ◆ Hodgkin's, myeloproliferative disorders, cancers with increased catabolism
- ◆ Endocrine/metabolic disorders
 - ◆ Thyrotoxicosis, pheochromocytoma, acromegaly, carcinoid tumor, hypoglycemia, menopause
- ◆ Rarely Idiopathic / Primary HH

Causes of Localized Hyperhidrosis

- ◆ Usually Idiopathic / Primary
- ◆ Social anxiety disorder
- ◆ Eccrine nevus
- ◆ Gustatory sweating
- ◆ Frey syndrome
- ◆ Impaired evaporation
- ◆ Stump hyperhidrosis after amputation

Idiopathic (Primary) Focal Hyperhidrosis

- ◆ Onset mostly at puberty or early adulthood
- ◆ Predilection sites: axillae, palms, soles, face
- ◆ Pathogenesis



Palmar disease: thenar eminence

Diagnosis of Primary Focal Hyperhidrosis

- ◆ Focal, visible, excessive sweating of at least 6 months duration without apparent cause with at least 2 of the following characteristics:
 - Bilateral and relatively symmetric
 - Impairs daily activities
 - Frequency of at least one episode per week
 - Age of onset less than 25 years
 - Positive family history
 - Cessation of focal sweating during sleep

Diagnostic Work-up

- ◆ **History**
 - Age of onset
 - Location
 - Trigger factors
 - Review of symptoms
- ◆ **Physical exam**
- ◆ **Laboratory evaluation**
 - Gravimetric -
1° research tool
 - Starch iodine - defines area of disease



Starch iodine test, with the darkened area showing location of excessive sweating

Quality of life: Primary Axillary Hyperhidrosis

- ◆ Less confident 72%
- ◆ Unhappy/depressed 49%
- ◆ Change type of leisure activities 45%
- ◆ Frustrated with daily activities 30%
- ◆ Miss outings/events 25%
- ◆ Decrease time in leisure activities 19%

Quality of Life: Primary Palmar Hyperhidrosis

- Interference with daily tasks 95%
- Social embarrassment 90%
- Psychological difficulties 40%

100 patients, palmar, presenting for sympathectomy

Available Treatments

- ◆ Topical agents
- ◆ Iontophoresis
- ◆ Systemic agents
- ◆ Botulinum toxin
- ◆ Surgery
 - Sweat gland resection
 - ETS

Treatment Response



Before treatment



Placebo



After treatment



Placebo

Starch iodine test, with the darkened area showing location of excessive sweating

Summary

Primary Focal Hyperhidrosis is a separate and unique disease

- Bilateral & symmetric
- Axilla, palms, soles, craniofacial
- Onset in childhood and adolescence
- Significant impact on quality of life
- Effective therapies