Letter to the Editor:

We read with great interest the guidelines on focal hyperhidrosis and the comprehensive approach to recognition, diagnosis, and management of this disease.[1]

With regard to severity of hyperhidrosis, the authors comment on the limitations of gravimetry with its considerable inter- and intrapatient variability. Gravimetry yields absolute values on the amount of sweat secreted within a time interval. Minor's starch iodine test[2] is used to visualize the sweating area without contributing to severity assessment.

The meaningfulness of gravimetry is limited because it yields absolute values, not taking into account the size of the sweating area, which differs considerably depending on the body mass index of the individual. In our sample of 101 patients (unpublished data), Minor test–positive areas ranged from 2 to 80 cm².

To solve this problem, we have developed a Hyperhidrosis Area and Severity Index (HASI), taking into account not only the amount of secretion within a given time interval, but also the size of the secreting area.

Technique

As usual, gravimetry is used to quantify the amount of sweat production by weighing a sheet of blotting paper before and 10 minutes after application. Then, the sweating area is stained using Minor's starch-iodine test. A square-lattice grid is placed on the stained area, and the area is estimated by point counting (Figure 1).

Point counting is a simple yet precise and sound mathematical method for area estimation with manifold applications in dermatology.[3,4] The only requirement is a square lattice grid, which can be made by copying a drawing on a transparent foil. If a
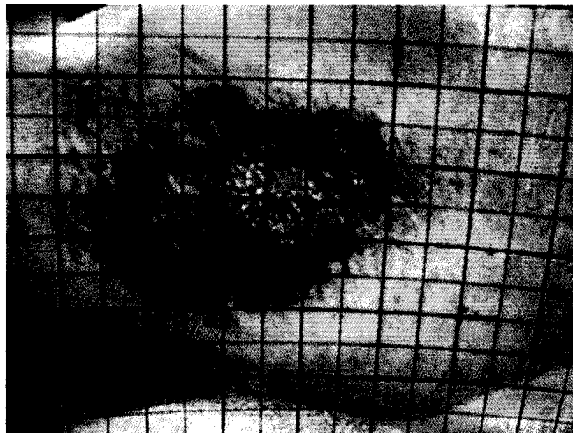

Figure 1. Minor test area superimposed with a double square lattice grid with a "grid constant" of 1 cm². Because 34 points are counted, the iodine-starched area is 34 cm². If the coarse lines ("grid constant" 4 cm²) are used, area estimation yields 32 (8 × 4) cm² (difference only 6.3%).

grid with lines 1 cm apart is used, 1 point represents 1 cm ("area value" or "grid constant"). After estimation of the sweating area, the amount of secretion can now be given in mg/cm² per minute.

In our sample of 101 patients suffering from axillary hyperhidrosis and tested within the last 3 years, HASI values ranged between 0 and 9 mg/cm² per minute. Arbitrarily, we assume hyperhidrosis to be present with HASI values above 1 mg/cm² per minute.

We would like to stress that the method described is not only mathematically correct and precise,[5] but also independent of costly equipment. Thus, HASI could serve as a tool to evaluate sweat production in mg/cm² per minute independent of the size of the sweating area.

References

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