# Alma Sweat X for Primary Axillary Hyperhidrosis - Histology Study

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## **Material and Methods**

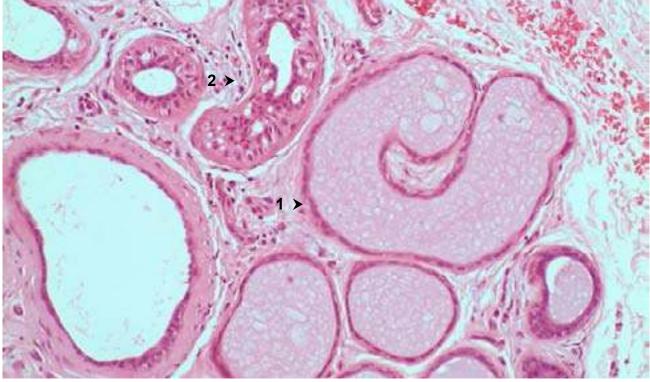
- 10 Healthy Female Patients were treated for primary Axillary hyperhidorosis.
- Average age was 32 years.
- Hair was removed before the treatment.
- Minor test was done before and after all sesions.
- One session per week. Total of 4 sessions.
- 2.5mm biopsies were taken from the Axilla. Before the first treatment, 24h after the first treatment and after 4 treatments.

### Dosimetry

- Patients were treated using the RF Uni/Coaxipolar protocol.
- Average energy ouptout was 90W, accumulative energy was 16kJ in 3 minutes exposure.
- Average Coaxipolar output energy was 58W, acumulative energy was 10kJ in 3 minutes exposure.
- Cooling on, In motion technique.

## **Histological Results**

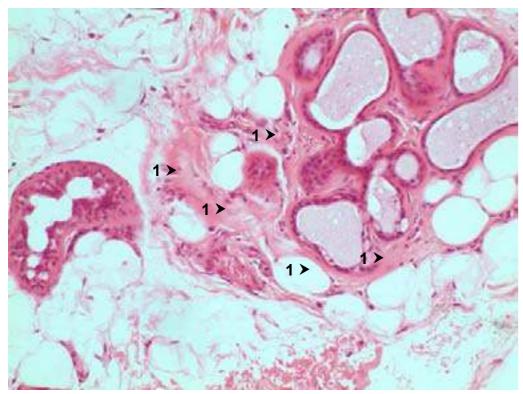
- 24h after the first treatment: Fibrosis around eccrine glands, chronic inflamatory infiltrate, eosinophilic leukcocytes and Red blood cells.
- After 4 treatments: Stroma edema, Inflammatory infiltrate lymphocytes and plasma cells. Eccrine gland does not show typical merocrine type secretion.





Before the Treatment. 1. The secretory portion of the apocrine gland shows a single layer of secretory cells, the secretory cells vary greatly in height depending of the stage of secretion. 2. The secretory portion of the eccrine gland shows only one distinc layer composed of secretory cells.

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After 24h. 1. Fibrosis around the apocrine and eccrine glands. Urdiales, F; Martin, S; Maiz, M; Garrido, E. 2013.

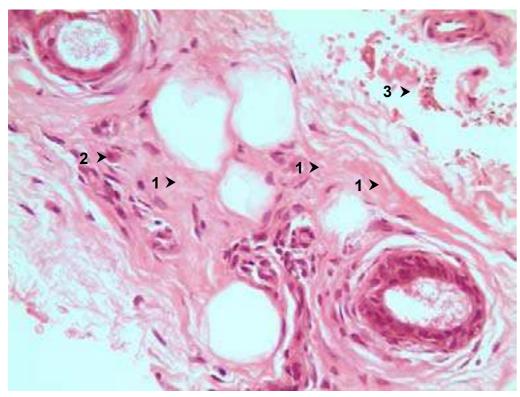


Fig. 3

After 24h. 1. Fibrosis around the eccrine glands. 2. Chronic inflamatory infiltrate, eosinophilic leukocytes. 3. Red blood cells.

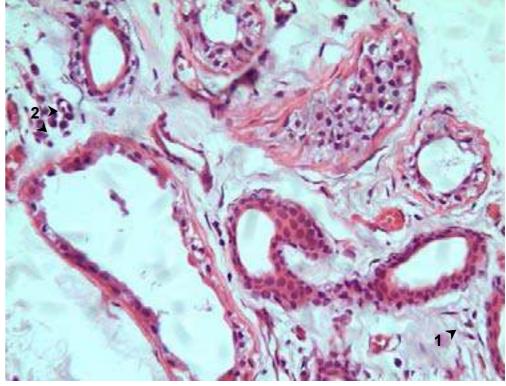


Fig. 4

After 4 treatments. 1. Stroma edema. 2. Inflammatory infiltrate lymphocytes and plasma cells. Urdiales, F; Martin, S; Maiz, M; Garrido, E. 2013.

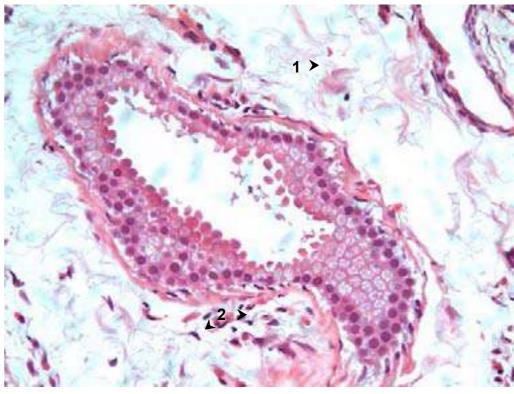


Fig. 5

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After 4 treatments. 1. Storma Edema. 2. Inflammatory infiltrate, eosinophilic leukocytes.

#### **Clinical Results**

- For all patients, sweat was reduced by more than 80%.
- Evident tissue demage of the sweat glands was demonstrated.
- All patients were satisfied with the results.
- Treatment was not painfull in all cases.



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