

NEW ANTIPERSPIRANT HYDROGEL WITH ACETYLCHOLINE BLOCKING MECHANISM: FIRST CLINICAL REPORT

INTRODUCTION AND DESCRIPTION OF THE NEW ANTIPERSPIRANT GEL

A new antiperspirant hydrogel has been projected and discovered based on an innovative mechanism of action consisting on acetylcholine release partial blocking. This biochemical mechanism is the main involved in eccrine sweat glands secretion and is the main issue to solve in the patients suffering of hyperhidrosis. Generally patients suffering of moderate to severe grade hyperhidrosis undergo to botulinum toxin sessions properly to block acetylcholine release and so reduce sweating for several months and furthermore apply day by day very high percentage of Aluminum chloride topical products to reduce excessive sweating. Botulinum Toxin is very effective because blocks specifically proteins which induce acetylcholine release and so reduce dramatically eccrine glands secretion; unfortunately injection of botulinum toxin is a strict specialist medical practice and is not free from side effects, contraindications, allergic events and so on. Not all the patients could be enrolled to apply botulinum toxin and many times these patients, impatient to solve their embarrassing condition, provide to buy this drug from not legal channels and accept to be treated from not specialized and skilled people. Furthermore, in the cosmetic landscape, there's only aluminum chloride products capable to produce acceptable results, but they are not free from side effects as adenitis and skin irritations if applied every day.

This new cosmetic approach to hyperhidrosis has the main purpose to give an important opportunity to all the patients suffering of hyperhidrosis allowing them to treat this condition with the same mechanism of action of botulinum toxin, but without inject anything and simply applying a pleasant and light hydrogel in the axilla, face, hands and forehead.

This gel contains an association of natural substances capable to reduce acetylcholine release in the proximity of eccrine glands reducing contextually their secretion, exactly as botulinum toxin, but in a very natural and not invasive way.

PRELIMINARY CLINICAL REPORT

20 patients suffering of moderate to severe grade hyperhidrosis have been tested under the supervision of specialized dermatologists in the San Gallicano Hospital Dermatology Department in Rome.

These patients began application of this new gel (SNARE BLOCK), after two weeks from the interruption of application of any other product for hyperhidrosis (aluminum chloride, long lasting antiperspirant products etc.): they only applied short lasting deodorants and a common hygiene protocol.

These patients were educated to apply SNARE BLOCK two times a day (morning and night) in the affected area taking care to induce a complete absorption of the gel in the skin area involved with a light massage. No other products for hyperhidrosis were applied with the exception of common deodorants with no antiperspirant molecules inside.

These patients came back to the clinic once a week to compile a clinical report under supervision of a dermatologist in charge to carry out the clinical evaluation.

The parameters considered were:

- Grade of subjective satisfaction;
- Grade of pleasantness of application;
- Indication of “sweat reduction grade” in a graduated scale;
- Fast working effect grade;
- Objective clinical examination;

At the end of the 4 weeks, 18 patients declared to be:

- quite satisfied to highly satisfied of the efficacy of the product indicating a grade of “sweat reduction” ranging from 6 to 8 in a graduated scale ranging from 0 for no effects to 10 for complete satisfaction. 1 patient interrupted after only 2 weeks declaring that the product didn’t work and another one interrupted after 3 weeks with no explanations;
- in a scale ranging from 0 to 10 for the “sweat reduction” parameter grade 2 patients reported a score of 8 (high grade of reduction), 13 patients reported a score of 7 (moderate-high grade of reduction); 3 patients reported a score of 4-5 (moderate grade of reduction);
- 16 patients declared to be satisfied in terms of pleasantness in a scale reporting these parameters: 2 patients not satisfied (bad sensorial effect in the skin), 7 patients moderately satisfied (acceptable sensorial effect, but not very nice), 9 very satisfied (very good skin effect and nice to apply);
- 18 patients declared a quite slow working effect onset: 7 patients declared to feel first working effect in sweating only after 15 days from the first application and the best effect after 18-20 days, 11 patients only after 20-22 days and the best after 24-25;
- Clinical evaluation carried out by dermatologist evidenced a well tolerated behavior of the product over 4 weeks of application, no significant side effects as redness, irritation, skin blistering have occurred to any patient enrolled; skin area involved in the application of the gel was, among the other things, very smooth and hydrated;

To summarize from this very preliminary clinical report these considerations could be accepted:

- This new hyperhidrosis gel is safe, quite pleasant to apply and cosmetically well accepted;

- Induce a discrete to significant sweat reduction effect even though in a quite long time (in the middle after 18-21 days) from the first application;
- It can be applied continuously day by day with no risk of irritation, blistering or any other dermatologic side effects (very important for a situation in which a daily application is needed);
- It can be considered a valid alternative or complementary strategy to the antiperspirant based on aluminum chloride to reduce irritation and other side effects;