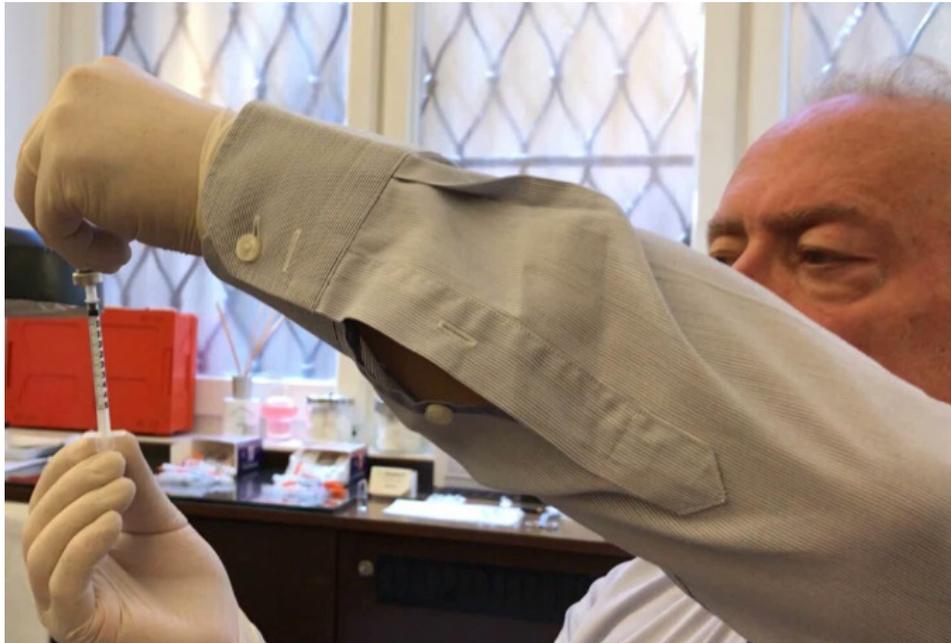


BOTULINUM TOXIN A FOR HYPERHIDROSIS: HOW TO TREAT UNDERARM SWEATING, HANDS, FEET, BACK, EARS AND FOREHEAD, BREASTS, GENITALS AND MORE! (1)



WHAT IS BOTULINUM TOXIN USED FOR?

Discovered in 1800, botulinum toxin was studied and developed in the last century and is a substance used for many years in Ophthalmology and Neurology to treat conditions such as stiff neck, strabismus and blepharospasm, but only in 1984 was it used for the first time in Aesthetic Medicine to eliminate mimic wrinkles. Since then, the use of this substance has increased exponentially thanks to the excellent results and the almost total absence of dangerous side effects. In Italy it can be used for wrinkles in the upper third of the face and in particular for wrinkles between the eyes, called glabellar, and for crow's feet, wrinkles around the eyes.

But one of its best indications remains the treatment of hyperhidrosis, in its various manifestations.

Excessive sweating affects 1 to 3% of the population and is therefore a widespread problem. Surgical techniques, in addition to being very invasive, they do not give the same results as the Botulinum Toxin, which instead allows very natural and physiological results.

THE BOTULINUM IN ITALY

In our country, the use of this toxin in dermatology is on label, recommended and indicated, for the treatment of axillary hyperhidrosis.

The other indications, although having excellent results and perfect experience and knowledge, are Off label.

This means that they are not indicated in the package insert, even if we know the indications, technique and results very well.

EXCESSIVE SWEATING: HOW CAN BOTULINUM TOXIN HELP?

The sweat glands are organs that are automatically regulated by the body, but in some cases they can produce an excessive amount of sweat, causing great discomfort to patients who are affected.

This excessive sweat production is called hyperhidrosis.

There are many types of hyperhidrosis, depending on the area of the body affected; among these we mention hyperhidrosis of the hands and feet, which inevitably alters the relationship life of those who suffer from it, but also axillary hyperhidrosis, which may necessitate felting of clothes that are in direct contact with the skin.

Traditional treatments for this condition, in addition to being particularly invasive, do not represent a permanent solution and are often the cause of excessive postoperative dryness.

Botulinum toxin, on the other hand, with its minimally invasive, its excellent results and the almost total absence of side effects, has revolutionized the therapy of hyperhidrosis.

WHAT PARTS OF THE BODY CAN BE TREATED?

Thanks to this substance it is possible to effectively treat excessive sweating in any part of the body:

- Hands
- Feet
- Armpits
- Face (forehead in particular)
- Breast (submammary zone)
- Groin
- Back (taxi drivers, truck drivers, secretaries, people who are very seated ..)
- Scalp, forehead, ears

To understand exactly where to make our injections and where the patient sweats exactly, it is possible to perform a test, the Minor test, which allows you to see exactly the affected areas. Both before the procedure and after the check, it helps us to understand the results and the technique well.

TABLE 6.2 - ECCRINE SWEAT GLANDS: AREA AND QUANTITY	
Area	Quantity (cm2)
Sole of foot	620
Forehead	360
Palms	300
Axillae	300
Thighs	120
Scrotum	80
Back	65
Lips	None
Nail bed	None
Nipple	None
Inner preputial surface	None
Labia majora	None
Glans penis	None
Glans clitoridis	None

Fig.1: concentration of sweat glands in different areas of the body.

HOW DO YOU PERFORM THE PROCEDURE?

Before proceeding with the treatment, anesthesia of the nerve trunks is usually performed. This eliminates the pain that especially in the hands and feet could be unbearable. Anesthesia takes a little time to become truly perfect.

To perform it I use really very fine and absolutely needles painless.

The injections of Botulinum Toxin, performed with a very fine needle, are superficial and generally painless.

The procedure itself is very simple:



Fig.2: how to find exactly the nerve median and ulnar!

a network is drawn
an injection of toxin is performed on the skin and in the center of each square Botulinum. This substance does not act immediately and will therefore be necessary wait a few days (about a week) before you can see the first ones treatment results.

The patients can be reviewed 15 days from the first session for a clinical check and an ev. free retouching, included in the costs.

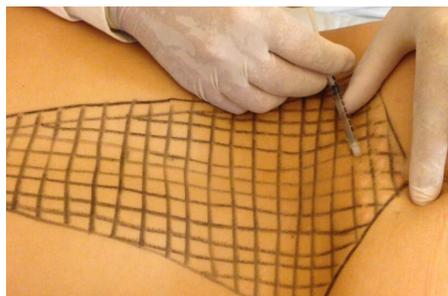


Fig.3 a-c: in (a) you see the injection of the tibial nerve to the ankle, in (b) the injections for hyperhidrosis of the back and in (c) for the intermammary region.

BOTULINUM TOXIN A AGAINST EXCESSIVE SWEATING: WHEN TO UNDERGO TREATMENT?

Since summer is the period in which those suffering from hyperhidrosis experience greater discomfort, it is recommended to perform this therapy in late spring, in order to achieve the maximum effect of the drug during the summer season.

During the winter, when hyperhidrosis is reduced due to the cold, the drug will begin to lose effect.

In this way, it is possible to treat the patient only once a year, in a large majority of cases.

In the most important cases, patients are treated 2 times a year.

SIDE EFFECTS AND COMPLICATIONS:

To date I have never had major complications.

Even for anesthesia I use small technical details that have allowed me over the years to always avoid the most annoying complication, post-procedure paraesthesia that does not last forever, but can last a few months.

It is due to the trauma of the needle on the nerve, especially if a large and traumatic needle is used. I obviously use a very thin needle, almost invisible, which can also pass through the nerve without creating the slightest trauma.

Small details that make a huge difference.

Otherwise I have never observed any other side effects.

Botulinum Toxin remains a very safe and effective drug.

1) Redaelli A .: Botulinum Toxin A in aesthetic medicine and for the treatment of hyperhidrosis. III edition revised and corrected. OEO Florence, 2019