

The MESOBOTOX, a different concept from the injection of the botulinum toxin - *Dr Bernard HERTZOG (Paris)*

The neologism “MesoBotox” is used to express another way to practice the injection of “Botulinum toxin” according to a certain number of criteria which are characteristic of each individual. In a more philosophical way we can say that this is an “aesthetisation process” of the effects of the botulinum toxin on the human being. **ARGUMENTS** 1) Anatomic arguments: - There is a real complexity in anatomic relations of platysma muscles of the face, often with imbrications which render the precision of the utopian intra muscular injection. - There is a real paradox between the slenderness of these platysma muscles of the face and their big mobility:

- If the anatomy of peaucier muscles of the face corresponds to a certain rigor of distribution for all individual, this is not the same for the importance of the muscular “volume” and of the muscular strength. The consequences on the morphotype of the face are very important.

- Another aspect of importance is the underlying bony relief which can give a wrong impression of volume.

2) Individual arguments: - The big and infinite variety of faces since each face is unique. Each individual is defined according to its face and facial expressions which assert its personality. - We can notice there are faces with complex expressions and face with more simple expressions.

- The respect of the patient desire by listening to her precise aesthetic preoccupations which don't inevitably correspond to the vision of the doctor or the surgeon.

3) Aesthetic arguments: - Movement: the total inability to move of a face because of the botulinum toxin is not really a gain of beauty and generally, to keep a certain movement inside the face is more interesting for the aesthetic of the face than the non movement. We can certainly say that movement is part of beauty and symbolizes life in general. On the other hand, the inability to move is rather a sign of death since the face is generally completely smooth. The face has lost all its expressions (pain, suffering, sadness, etc...) which are the personal reflection of the individual.

- General aspect of the face: for example the bony reliefs which often serve as tensor to muscles (as the stake of a tent) or the more depressive areas as the rings where we must never inject botulinum toxin. We thus need to take into account the bony morphology of the face to realize a MesoBotox.

- One of the effects of ageing on human being is a progressive narrowing of its openings on the exterior world: on the face, it is easy to notice the closing of the ocular opening and of the mouth. The maximal interest of the Botox and especially of the MesoBotox is to be able to relax the right muscles (orbicular) and thus to cause the reopening of the openings. This action is expressed by a new lighting of the face as if it better caught light.

- Aesthetisation of the world: beauty and the glance of people. In this general frame the MesoBotox tries to perpetuate natural beauty. This technique goes the way which is asked by patients: “keep its natural”. It's beauty but without the fact that we could distinguish the artifices of the toxin!

INDICATIONS It's possible to realize a MesoBotox for every faces but also and especially for particular areas of the face, areas where the skin is thinner and the muscles flat. As any dividing in some cases, the indication of the MesoBotox is maximal. These cases are represented by faces with more complex expressions and whose overlapping of muscular functioning is obvious. These cases of face with complex expressions are even a standard contra-indication of the Botox, since this would lead to rather ill-fated consequences on this kind of face: feeling of “total covering with lead of the face”, of sinking and the general aspect becomes sad, dull, wrinkled and fixed. The MesoBotox must be a “botulinum toxin “à la

carte” determined by a detailed examination of the patient.

TECHNIQUE To achieve a MesoBotox is also to practice an aesthetic act of quality; the word “aesthetic” comes from Latin “aisthésie” which means feeling and perception at the same time.

1) Cleaning of the face with an appropriate solution

2) Strict and detailed observation of the face of the patient: - Use of a dermatographic pencil which will allow to mark the different observed areas; the “added” areas are marked in the form of little circles or with spots, the “deducted” areas (wrinkles and furrows) are marked by lines or “crosshatched”

- The careful observation of the face is made by observing but also by palpating muscles to estimate the muscular fund according to bony relief which allow to accentuate the muscular functioning and to show the degree of imbrication of muscles. These mimics are at least 5: a) The movement of eye closing, forced. b) The movement of exaggerated eye opening with rising of the eyebrows: this one is very important to unveil a tendency of exaggerated rising of the eyebrow allowing to prevent the effect “méphisto”. c) The movement of frowning. d) The movement of an exaggerated forward kiss. e) The movement of an exaggerated upward smile. Before practicing the injections, a real cartography of the face must be achieved. Illustrations of the “cartography of the face on one hand and of the technique of injection on the other hand; thanks to the vasoconstriction, the papules are visualized.

3) Technique of injection: The technique of injection of the botulinum toxin corresponds to the criteria of the mesotherapeutic injection. Intradermic injections must be achieved in the medium derma in order to achieve a dermic papule so that a spreading can be done. If a too much superficial injection is achieved, the papule becomes vesicle, the product remains at the level of the superficial derma and the underlying effect is quasi absent.

4) Dilution of the toxin: Several dilutions are achieved in this presentation according to the use of the toxin: • High concentration case of use: a flask of 100 U is diluted with 1 ml of physiological serum. “**D1**” • The most standard case of use: the used toxin is diluted with physiological serum: for 1 flask of 100 U of Botox, 5 ml of physiological serum is added and then 0,15 ml of Xylocaïne at 2% adrénalisée. “**D2**” • Case of diluted use of the toxin: 1 flask of 100 U diluted with 7 ml of physiological serum + 0,2 ml of Xylocaïne at 2% adrénalisée. “**D3**” • Very diluted case: 10 unities of toxin for 1 ml of physiological serum. Really particular use by micro injections in the dilated pores of the nose and the chin. “**D4**” • Case of the “Mesolift with Botox”: quasi cosmetic use of the botulinum toxin. 10 unities of the toxin are diluted in a syringe of 5 ml (procaine + vit.C.). “**D5**”

CASE and RESULTS 1) Opening effect of the eye by the MesoBotox. In this standard case, an intra muscular injection of 2 unities of Botox (with D1) is first achieved on a spot located beyond the external border of the eye where the muscle is the fleshiest. Intradermic injections are then achieved, papules (with D2) on the whole area around the eye, external and internal parts near the nose.

2) Opening effect on the eye 10 days after the session. In this case the MesoBotox has been achieved by diluting a flask of Botox with 9 ml of physiological serum and 1 ml of 2% procaine. The obtained effect is very smooth but the use of the procaine increase the diffusion too much.

3) The patient is “in forced closing of her eyes” but she had a session of MesoBotox (with D3) and the picture had been taken 1 month after the session. The face is not completely smooth, there still are wrinkles, the movement still exists but the general aspect is a big serenity and this serenity can even be distinguished in the movement.

4) The same patient at one month’s interval but viewed from a relaxed profile. The picture shows us the intense relaxation of the face with this visible serenity, even with the patient’s eyes closed :

5) a ¾ picture of the patient at 10 days' interval who had received a session of « Botox and MesoBotox », use of D1 on the glabella area + a spot of the external eye border, use of D2 for this area around the eye, and use of D3 for the forehead, the cheeks and the area around the mouth. The photographic document of this patient perfectly illustrates the result we're trying to obtain with this technique: a general impression of beauty renovation with a "serene-like" effect :

6) Case of use of D4. I used this dilution for the treatment of the dilated pores on some patients on which I had practiced Mesolifts with the botulinum toxin and which had pointed out to me a clear improving of their skin. After a detailed cleaning, with scaling of the black spots with a very thin comedo pulling out, I practice micro injections by catheterising the hole of the pore with an ultra small needle having a short bevel and I inject a bit of diluted toxin in order to make the skin whiten by the injection. This injection must not be painful since the needle is placed in the space of the pore and, moreover, the short bevel is very important to cause a resistance to the penetration. So there are no cutaneous injuries and it must not bleed!

This nose just received around 4 unities of diluted Botox by intradermic. The obtained result on this type of skin is particularly efficient with a very clear effect on this very disagreeable aspect of "dilated pore". This satisfaction indication is maximal. 7) Case of the "cosmetic" use of the botulinum toxin D5: by practising a Mesolift associating, for in ¾ stance, 2% procaine and vitamin C, 1à unities of botulinum toxin are introduced in the syringe. The indication, a bit thick skins present dilated pores or a micro-acne. Of course the skin needs a previous cleaning or a microdermabrasion before the session of micro injections.

DISCUSSION AS Dr Lelouarn rightly specified in his article in the magazine "Aesthetic Plastic Surgery", in order to avoid a too big diffusion of the product: in the short and thick muscles, it is better to use high concentration toxin, and in the flat and thin muscles, it is better to use diluted toxin. It's already a bit of the idea of the MesoBotox; since the use of a diluted toxin on a short muscle leads to an inaccuracy of the injection hence an improbable result; on the other hand, on a flat muscle, we prefer that the product precisely acts in a more diffuse hence inaccurate way. In the MesoBotox, there is also the idea of a "temporisation of the effect of the toxin" which allows to obtain a smoother result, the "serene-like" effect that the patients ask for. Moreover, thanks to the dilution, the MesoBotox allows to inject the areas of the eye muscles where the use of a highly concentrated toxin always leads to complications. The MesoBotox can apply itself to all faces but not to all areas of the face. On the other hand, there are faces for which the indication of the MesoBotox is increased and obligatory. In conclusion, the idea of the MesoBotox in practice is really a "Botulinum Toxin à la carte": **"to each its Botulinum toxin"**.

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