

LIPODYSTROPHY

SEVERAL ORIGINS, ONE SOLUTION

Lipodystrophy is an abnormality in the metabolism and distribution of fat in the body including two forms:

- Lipohypertrophies (fatty deposits forming "balls" under the skin).
- Lipoatrophies (hollow shaped deformation).

Lipodystrophy can occur following the use of drug treatments for certain diseases such as H.I.V., diabetes or multiple sclerosis (MS).



IN CASES OF H.I.V. TREATMENT:

Lipodystrophy syndrome was first described 10 years ago as a complication of triple antiretroviral therapy. Its prevalence is **20 to 50%** in people exposed to these tritherapies, but its incidence tends to decrease with the arrival on the market of new molecules. The change in fat distribution concerns the face, limbs and buttocks (lipoatrophies) but also the stomach and neck (lipohypertrophies).

Lipodystrophy is an important factor in the interruption of treatment. Unfortunately, once lipodystrophies have become established in a person, it is very difficult to reverse them: physical activity, a balanced diet and stopping the treatments in question can lead to improvements, but these may remain minimal. Cosmetic surgery can be considered for the most severe cases.

IN CASES OF DIABETES TREATMENT:

Lipodystrophy is one of the skin complications related to insulin therapy. In diabetic patients, lipohypertrophies are mainly caused by the anabolic effect of insulin promoting lipid and protein synthesis, whereas lipoatrophies are considered a much rarer local allergic reaction. Diabetic lipohypertrophy has the same aspect as hypertrophic cellulitis. **Nearly two-thirds (64%) of insulin users develop lipohypertrophy** at the sites

of repeated injections. Furthermore, injecting insulin into areas with lipodystrophy can cause variations and disturbances in insulin absorption, leading to disturbances in blood sugar levels, which in turn leads to an imbalance in diabetes. The discomfort is therefore both aesthetic and functional (pain, reduced effectiveness of insulin treatment, haematomas, oedemas).

IN CASES OF MS TREATMENT:

Lipodystrophies are also described as a side effect of daily injections of glatiramer acetate, a treatment for multiple sclerosis (4). Lipodystrophies affect **between 45 and 64% of patients**. There is no consensus for the treatment of this skin reaction, which is a frequent point of discussion between neurologists and dermatologists. At the same time,

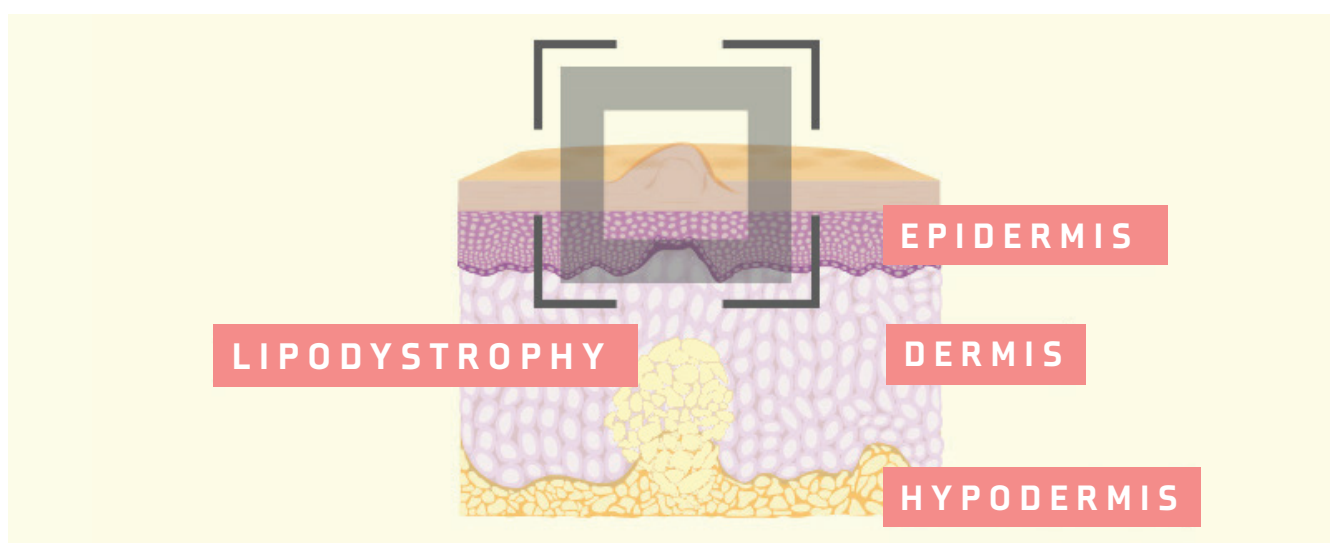
other side effects such as pain, inflammation and indurations at the injection sites can occur in **20 to 60% of patients**. Efforts are being made by the TEVA laboratory - the world leader in generic drugs and one of the manufacturers of the molecule - to reduce the frequency of weekly injections from 7 times/week to 3 times/week.



CONSEQUENCES: Beyond the aesthetic aspect (of great importance today), lipodystrophies can have major therapeutic, psychological, emotional and social consequences since a person who cannot bear the transformations of his body can lose his self-esteem.

FOCUS ON MS PATIENTS: The efficacy of endermologie® in the treatment of lipodystrophies following glatiramer acetate injection has been described in scientific articles. The latest article represents the largest available experience demonstrating the benefits of the medical endermologie® technique (12 sessions) in the reduction/disappearance of indurations and in the improvement of lipodystrophies in patients receiving MS treatment over the long term.

The evaluation involved 70 MS patients (average age 42.7 years; 95.7% female; average duration of MS 9.2 years; average duration of treatment: 46.7 months). 50 patients had indurations and 58 patients had lipodystrophy.



AFTER 12 SESSIONS:

- 30 patients out of 50 no longer showed indurations (significant decrease of 42.8%).
- The number of these indurations and the number of areas of lipodystrophy decreased significantly (-13.5% and -10% respectively).



MARQUEZ-REBOLLO C. et al. *Advances in Therapy*. 2014 Aug;31(8):904-14

98 %

OF PATIENTS ARE SATISFIED OR VERY SATISFIED WITH THE TREATMENT

- The aesthetic improvement observed in the photographs is unequivocal (see picture).
- 98% of patients are satisfied or very satisfied with the treatment and consider it very useful.
- 60% of patients show a better tolerance to the product.

Even if the mechanisms involved in the observed improvements are not completely elucidated, restructuring of cutaneous and subcutaneous tissue is strongly evoked.

CONCLUSION: endermologie® demonstrates its effectiveness in the treatment of this complication in patients suffering from MS. Other patients confronted with this problem could also benefit from this treatment only under medical supervision especially for diabetes patients who need more caution with the treatment.

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