



Letter in reply to Letter to the Editor: Fat injection as a valuable tool for lower eyelid retraction management: a retrospective, observational, single blind, case–control study

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Dear Editor We have read Dr Riccardo Fondrini and Colleagues commentary on our paper, and we are grateful for their remarks. We herewith would clarify the critical points mentioned about fat reabsorption and survival, along with the risk of periorbital chronic oedema as per the recorded outcomes in the presented case series. Lastly, we have unfortunately to disagree with the commentary's point related to recommended injection depth as it is mandatory to point out that in our experience the superficial injection of nano-fat is a crucial step for lower eyelid retraction management, otherwise a retraction may persist due to the untreated scar in the anterior lamella, thus missing the therapeutic goal that we aim to achieve.

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Keywords Eyelid · Retraction · Fat · Treatment

Dear Editor,

We thank Dr. Riccardo Fondrini and Colleagues for their commentary on our paper. We respond here by clarifying the critical points they have highlighted.

Fat reabsorption and its hypertrophy after weight gain are described as complications that occur when grafting viable adipocytes (so-called milli-fat), whilst in the presented study the harvested fat has been filtered with 0.4-mm filter before injection (so-called micro-fat), and if injection in the anterior lamella was planned, 0.2-mm filters were further used (so-called nano-fat).

According to our opinion and to published evidence, both the latter are indicated in the lower eyelid [1, 2].

The other mentioned complications (persisting bruising and swelling, calcifications, migration of fat, asymmetry, lipo-granuloma, and paresthesia) are not reported for nano-fat injection to date.

Lastly, survival of nano-fat graft in the eyelid it not the endpoint since the procedure is aimed to release the scar tissue taking advantage of the micro-environmental changes that occurred in the fibrotic tissue itself, as point out by the commentary.

Compression of lymphatic vessels potentially leading to chronic lymphoedema secondary to superficial injection in the periorbital area has not been recorded in the presented cases, probably due to retrograde injection of liquid fat in the space created carrying out criss-crossing micro-tunnels that allow to properly spread it and to avoid 'sausage-like' depots parallel to eyelid margin.

Again, we point out that injection to anterior lamella must be carried out only of liquid nano-fat as every fat lobule will be conversely visible and capable, once engrafted, to compress the lymphatic net [1, 3–5].

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In the presented paper, the authors refer to nano-fat transfer in the tear trough and lower eyelid and micro-fat transfer in the malar region to support and to rise the position of the lower eyelid at rest by volume addition, taking advantage of this dual benefit: nevertheless, peri-orbital oedema has indeed been recorded in two patients and authors therefore agree with the commentary's point about this issue [6–8].

LER correction requires multiple approaches to be treated regardless of the cause and severity, since when retraction is the outcome, then a corrective choice must be made: the cases presented in this article have undergone primary surgery and the outcome has been later evaluated, but when some retraction remains afterwards, it is the authors' choice to target the scary tissue rather than to carry on with further surgery.

This paper has therefore been conceived to assess the role of fat grafting objectively and subjectively in this therapeutic issue, not to claim its efficacy as a single-step procedure, which is of course in itself not sufficient for LER correction, as confirmed by the presented statistical analysis and extensively pointed out in the discussion.

To conclude then, it is author's opinion that the scar reaction involves unpredictably the anterior lamella with its shortening, or displaces the posterior one, or it presents with full-thickness adherence between the orbital septum and its surrounding tissues.

Whilst it is possible to assess it by clinical tests we feel that, in patient affected by iatrogenic lower eyelid retraction, to consider the septum still as an anatomical limit between the anterior and the posterior lamella is merely speculative as the dermo-epidermal plane mentioned by the commentary appears to be too: the authors respectfully disagree with that commentary's point and believe that to inject nano-fat to soften the entire thickness of scary tissue is the goal to be achieved in order to properly restore optimal tissue condition and eyelid position.

Indeed in this case series, the scar tissue extends up to the very thin eyelid skin therefore, and if nano-fat is injected only in its deeper layer, as recommended by the commentary, a retraction may persist due to the untreated scar in the anterior lamella, thus missing the therapeutic goal that we aim to achieve with fat grafting in retracted lower eyelid [9–11].

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Declarations

Conflict of interest The authors declare that they have no conflicts of interest to disclose.

Disclosures None.

Informed Consent For this type of study, informed consent is not required.

Statement of Human and Animal Rights, or Ethical Approval This article does not contain any studies with human participants or animals performed by any of the authors.

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