



# Letter on An Optimized Method for Adipose Stromal Vascular Fraction Isolation and its Application in Fat Grafting

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Sir,

We read with great interest the article entitled “An Optimized Method for Adipose Stromal Vascular Fraction Isolation and its Application in Fat Grafting” by Cao L et al. [1] in *Aesthetic Plastic Surgery*. In this article, the authors proposed a novel technique for adipose stromal vascular fraction isolation to assist fat grafting. Their method is a combination of enzymatic isolation and mechanical isolation to acquire higher number of SVFs from adipose tissue for regenerative purpose.

Based on the authors’ method, the harvested SVF cells were more than  $2.5 \times 10^6$ /ml of adipose tissue within 90 min of operation. The high preparation efficiency is beneficial to saving the donor site. However, the concentration (0.15%) of collagenase used by the authors was not low, as the conventional concentration is 0.075%. [2] In addition, the authors should provide more details about the donors, such as basic characteristics of patients, the type of surgery and locations of the donor site, since the above factors are related to the SVFs viability.

The main difference between the authors’ method and the conventional method is the addition of the grinding step before digestion. Thus, we suggest the authors provide more details on grinding, such as the grinding time, and figures on grinding process and after grinding. Further, it is

necessary for the authors to explain the differences between their grinding method and the commonly used mechanical treatment method via the female-to-female Luer-Lok connector. [2]

Overall, the authors’ approach results in high cell yields, which will be beneficial for improving existing techniques.

## Declarations

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

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

**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.

## References

1. Cao L, Xiaoming F, Zhang Q et al (2022) An optimized method for adipose stromal vascular fraction isolation and its application in fat grafting. *Aesthetic Plast Surg* 46(5):2500–2508
2. Yao Y, Dong Z, Liao Y et al (2017) Adipose extracellular matrix/stromal vascular fraction gel: a novel adipose tissue-derived injectable for stem cell therapy. *Plast Reconstr Surg* 139(4):867–879

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