

Comparing Collagenase and Tissue Subcision for Cellulite Treatment of the Buttock and Thigh Regions: A Systematic Review and Meta-Analysis

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Introduction

- Cellulite, a condition precipitated by both regressive and progressive structural alterations of the skin, is characterized by subcutaneous adipose tissue lobes interspersed with fibrous Septa.¹
- Cellulite typically starts during early adolescence and may be exacerbated during pregnancy or menopause, posing a significant cosmetic and social challenge for the 80-98% of individuals affected.^{2,3}
- Interventions targeting fibrous septa have shown partial success in managing cellulite, including laser and light modalities combined with radiofrequency, acoustic wave therapy, tissue subcision, and enzymatic therapies.⁴
- The macroscopic presentation of cellulite is hypothesized to be influenced by fibrous septae characteristics (thickness and organization), dermal support for underlying layers, and the architecture of deep and superficial fat layers.⁵
- Consequently, more precise and less invasive treatment alternatives have been developed, such as collagenase clostridium histolyticum-aaes (CCH-aaes).⁶

Objectives

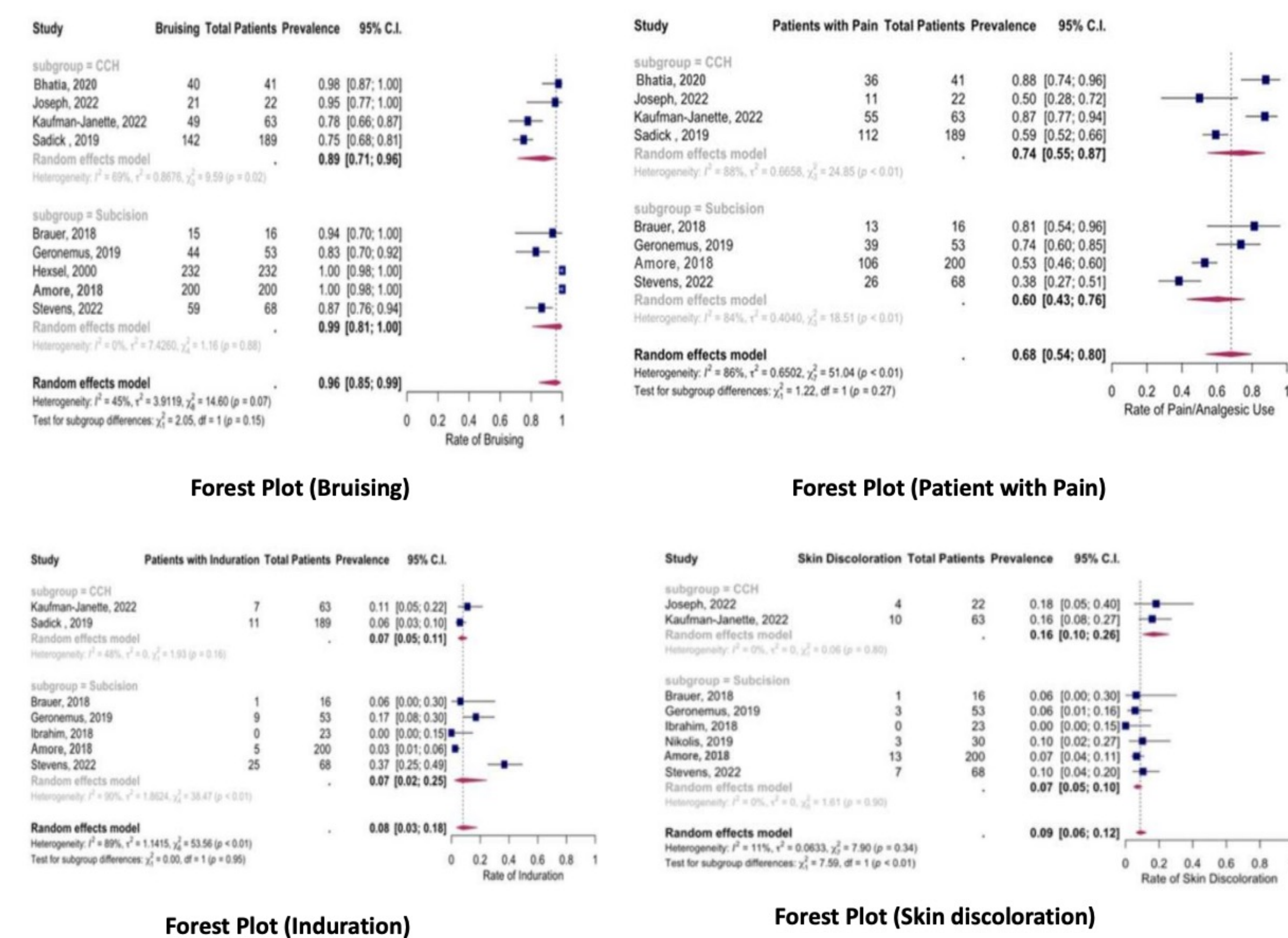
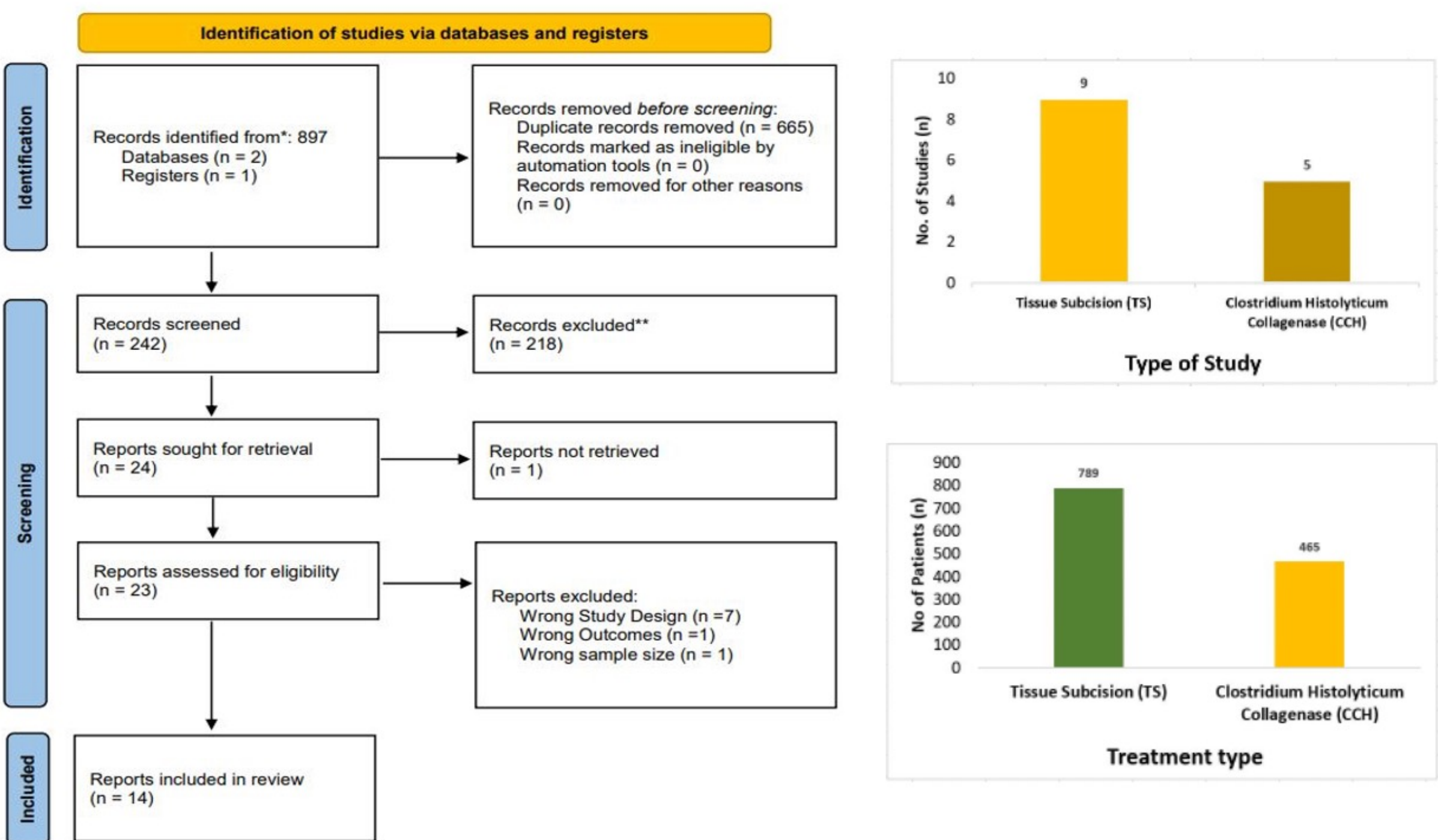
- To assess the therapeutic efficacy and safety of Clostridium Histolyticum Collagenase (CCH) and Tissue Subcision (TS) in the management of cellulite.

Methods

- A systematic review was performed following PRISMA guidelines for CCH and TS treatment to the thigh and gluteal regions.
- A comprehensive research review using subject headings, controlled vocabulary and keywords was used to search on OVID/MEDLINE, Embase, Web of Science, and the Cochrane Central Register, ClinicalTrials.gov.co for studies published until 2023.
- A proportion meta-analysis was then conducted using Stata statistical software.

Results

- A total of 1254 patients were included in the study.
- Age of patients was 18 or older.
- Out of 14 studies, 9 studies reported TS while 5 studies reported CCH.



Conclusion

- Both CCH and TS have emerged as potentially effective treatments for cellulite in the thigh and buttock regions.
- Each method offers a distinct approach to cellulite management, characterized by its own procedural mechanics and tissue responses.
- However, TS tends to cause more bruising, while CCH treatments may lead to increased post-operative pain necessitating analgesics, and a notable prevalence of skin discoloration.
- These divergent outcomes underscore the variability in treatment responses and highlight areas requiring further refinement.
- Future research, focusing on standardizing procedural specifics, patient experiences, and associated costs, will be instrumental in more effectively comparing these treatment outcomes.

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