

INPLASY PROTOCOL

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**Review Stage at time of this
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Conflicts of interest:
None declared.

Complications and adverse effects related to the hyaluronic acid facial filling with aesthetic purposes: a systematic review

Moretto, G¹; Cardoso, JM²; Shimizu, IA³; Silva, RD⁴; Shimizu, RH⁵;
Granjeiro, JM⁶.

Review question / Objective: Which complications and adverse effects are related to the use of hyaluronic acid fillers for facial aesthetic purposes in adults?

Condition being studied: Bring awareness of the possible side effects and complications to professionals using hyaluronic acid fillers on the patient's face for aesthetic purpose.

Information sources: Data bases: PubMed/MEDLINE, LILACS; Web of Science, Scopus, EBSCO; Grey literature Report; Additional Search: Hand-searches of reference list from included studies and experts.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 May 2021 and was last updated on 17 May 2021 (registration number INPLASY202150069).

INTRODUCTION

Review question / Objective: Which complications and adverse effects are related to the use of hyaluronic acid fillers for facial aesthetic purposes in adults?

Condition being studied: Bring awareness of the possible side effects and

complications to professionals using hyaluronic acid fillers on the patient's face for aesthetic purpose

METHODS

Search strategy: ("esthetics procedures" OR "Facial Esthetic procedures" OR "injections" OR "rejuvenation" OR

"aesthetics" OR "aesthetic medicine" OR "Facial Esthetic") AND ("Hyaluronic Acid" OR "Hialuronan" OR "dermal fillers" OR "skin filler" OR "skin fillers") AND ("adverse effects").

Participant or population: Adults.

Intervention: Facial hyaluronic acid fillers.

Comparator: None.

Study designs to be included: RCTs, Clinical trial.

Eligibility criteria: Studies that present one or more complications or adverse effects caused by the facial hyaluronic acid fillers for aesthetic purposes.

Information sources: Data bases: PubMed/MEDLINE, LILACS; Web of Science, Scopus, EBSCO; Grey literature Report; Additional Search: Hand-searches of reference list from included studies and experts.

Main outcome(s): Complications and adverse effects related to the hyaluronic acid facial filling with aesthetic purposes.

Data management: Rayyan.

Quality assessment / Risk of bias analysis: RCT studies - The Cochrane Collaboration's tool for assessing risk of bias. Nonrandomized studies - Robins-I or Minors. The level of evidence will be analyzed by using GRADE.

Strategy of data synthesis: Where appropriate, for continuous data mean difference, and for dichotomous data relative risk (RR) values (with 95% confidence interval) will be calculated. In addition, the contribution weight of studies and their statistical heterogeneity will be also calculated. For statistical significance, a value of $p < 0.05$ will be used.

Subgroup analysis: None.

Sensitivity analysis: Two independent reviewers (1R and 2R) will select the

included articles. First, in phase-one, both reviewers will read titles and abstracts independently while applying the eligibility criteria. Second, in phase-two, the same two reviewers (1R and 2R) will perform a full-text reading while applying the election criteria. In both phases, all the retrieved information will be crosschecked by the third review (3R). Final selection will be always based on the full-text of the publication.

Language: English.

Country(ies) involved: Brazil.

Keywords: Hyaluronic Acid, dermal fillers, skin fillers, adverse effects, rejuvenation.

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