

INPLASY

Arterial Vascularization of the Forehead in Aesthetic Dermatology Procedures: A Review

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 June 2024 and was last updated on 25 June 2024.

INTRODUCTION

Review question / Objective The current review aimed to analyze the literature findings on the arterial vascularization of the forehead to provide insight into the variability of these vessels and to identify potential high-risk zones for aesthetic dermatology procedure.

Condition being studied Arterial Vascularization of the Forehead in Aesthetic Dermatology Procedures.

METHODS

Search strategy Database research was performed between February 2024 and April 2024, including PubMed, Web of Science, Scopus and Embase record.

Participant or population Not applicable.

Intervention None.

Comparator None.

Study designs to be included Database research was performed between February 2024 and April 2024, including PubMed, Web of Science, Scopus and Embase records. The search results were restricted to studies published from 2004 to 2024. The results were exported from the databases to the citation manager - EndNote 21. Duplicate records have been excluded.

Eligibility criteria Inclusion criteria were articles in English, anatomical studies concerning the course, location and variations of the frontal arteries (supratrochlear, supraorbital, central, paracentral artery and frontal branch of superficial temporal

artery) within the context of safety in dermatological, dermatosurgical, and aesthetic procedures.

Information sources PubMed, Web of Science, Scopus and Embase record.

Main outcome(s) The glabella region appears to be one of the most dangerous areas for dermatologic procedures. It is believed that the supratrochlear, supraorbital and the paracentral arteries may cause ophthalmic complications due to occlusion of the ophthalmic artery, while this risk for the frontal branch of the superficial temporal artery seems to be low, but cannot be completely excluded.

Quality assessment / Risk of bias analysis All articles were reviewed by two authors, paying attention to the risk of bias strategy. This procedure was conducted based on well-know way of analysis.

Strategy of data synthesis No meta-analysis was provided for this project. Data conversion involved only minor adjustments, such as converting dimensions from centimeters to millimeters, providing consistency in certain anatomical terms if different studies used different synonyms for the name of a particular anatomical structure and providing the number of hemifaces examined when initially not reported but feasible (e.g., when the authors disclosed the number of cadavers but examined both sides of the head) to ensure consistency of the total number of cases included.

Subgroup analysis Not applicable for this study.

Sensitivity analysis Not applicable for this study.

Language restriction English.

Country(ies) involved Poland.

Keywords arterial vascularisation, forehead, easthetic dermatology.

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