**Tongue Transplantation: A Systematic Review and Meta-analysis**

**Abstract:**

**Background:**

On July 19, 2003, the world's first tongue transplantation was performed by a Viennese team of surgeons, grafting a tongue from an ABO-matched heart-beating donor into a 42-year-old man with tongue cancer. A month later, with a tracheostomy for airway protection and a gastrostomy for nutrition, the beneficiary was released from the hospital.

This study is a review for all the papers that report on tongue transplantation either alone or with facial transplant.

**Methodology:**

A systematic literature review was conducted to identify and select studies and case reports about the tongue transplantation surgeries and their outcomes in accordance with the PRISMA guidelines. Data was analyzed with Review manager version 5.4. P-value and I2 were used in testing the significance difference.

**Results:**

6 studies out of 13 assessed for eligibility were included in the review depending on the criteria of the study. There were 51 patients from 4 countries who did a tongue transplantation surgery included in this review. There is a significant heterogeneity between the outcomes for before and after the surgery among the patients with P-value = 0.001 and I2 = 85%.

**Conclusion:**

The tongue is not a vital organ in the maintenance of life, but it can be a vital organ in the maintenance of many people's will to live. In fact, the only cases of tongue replantation previously published included only the reattachment of the anterior portion of the human tongue after physical injury.

**Keywords:**

Tongue transplantation; Facial Transplantation; Plastic Surgery; Systematic review.