IMPACTS OF BOTOX ON THE MANAGEMENT OF SIALORRHEA: ANALYSIS OF RECENT STUDIES

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Introduction

Sialorrhea is characterized by excessive salivation, generating an exacerbated accumulation of saliva, which overflows outside the oral cavity. This condition is common in babies between 15 and 36 months old when salivary continence is established, which is why it is considered abnormal after 4 years of age (SPOSITO & TEIXEIRA, 2013). The average daily flow of total saliva varies between 1L and 1.5L. The percentage contribution according to the salivary glands of the unstimulated flow is 20% for the parotid, 65% for the submandibular, 7% to 8% for the sublingual, and less than 10% for the numerous smaller glands (EDGAR, 1990; HUMPHREY; WILLIAMSON, 2001). The high rates of stimulated flow drastically alter the percentage contributions of each gland, with the parotid contributing up to 70% of the total salivary secretions. Comorbidities can contribute to a significant increase in salivation and lack of control over the swallowing flow, thus causing discomfort to the person, problems with social interaction and even increased hospital stays. There are several approaches to controlling sialorrhea, ranging from the more traditional, such as the use of anticholinergics and anti-reflux medications, to the less invasive, such as the use of Botulinum Toxin type A, to the more invasive and aggressive, which are surgical, with the removal of the salivary glands and ligament of the ducts, which are considered effective in more severe cases and without other control alternatives.

Botulinum toxin has been widely studied for various aesthetic and therapeutic purposes, treating a wide range of clinical conditions such as hyperhidrosis, hemifacial spasms, sialorrhea, among others.

It is known to the professional who uses it as an alternative that botulinum toxin is a neurotransmitter produced by the bacterium Clostridium Botulinum, initially studied by the German physician Justinus Kerner at the end of the century in 1895, who began studying its interactions, as well as its uses and prognoses to this day, based on the isolation of a bacterium. This study aims to conduct an integrative review to clarify the role of botulinum toxin in the management of sialorrhea, contributing to the advancement of scientific knowledge and dental practices. To this end, scientific articles will be analyzed, selected based on rigorous criteria of relevance and methodological quality.

THEORETICAL BASIS

Sialorrhea, defined as the involuntary loss of saliva through the mouth, is a condition that can significantly compromise the quality of life of patients, affecting their health and social interaction (TRINDADE, 2024). Botulinum toxin type A (TBA), produced by the bacterium Clostridium botulinum, acts by blocking the release of acetylcholine in nerve fibers, preventing the production of saliva by the salivary glands (SANTOS, et.al 2022). Studies indicate that the application of TBA in the salivary glands can significantly reduce sialorrhea, with therapeutic effects observed between the 7th and 14th day after application, and lasting 3 to 6 months (CARMO, 2019). In addition, the administration of botulinum toxin presents