Do Oral Pathogens Contribute to Neurological Conditions?

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INTRODUCTION

With periodontal disease and carious infections so prevalent in society, what other health issues and problems arise as a result?

- Intracranial aneurysm
- Ischemic stroke
- Dementia
- Cognitive decline and impairment

Research was conducted to explore **oral pathogens** and their **effect** on **neurological conditions.**

RELATION TO DENTAL HYGIENE

- Oral health is connected to overall health
- Dental Hygienists play a role in preventing adverse health conditions through treating oral conditions
- Therefore, Dental Hygienists aim to improve the overall health of their patients

RESEARCH FINDINGS

Study 1

Results demonstrated that a high *cnm*-positive ***Streptococcus Mutans*** may be a **risk factor** in patients with one of the following: **cardioembolic stroke, non-cardioembolic infarct, intracerebral hemorrhage, and ruptured and unruptured intracranial aneurysm**.

Study 2

Results showed that **dental prophylaxis** as well as **periodontal treatment**, **reduce** the risk of **ischemic stroke** in people with periodontal disease.

Study 3

Results of the study showed that improving **oral hygiene care** is beneficial in **reducing oral pathogens** in stroke survivor patients.

Study 4

Results of this study demonstrated that **bacterial DNA** can **play a role** in the development of both **ruptured and unruptured cerebral aneurysms**.

Study 5

Results showed that ***cnm*-positive *Streptococcus Mutans*** is greatly associated with Ischemic stroke and that there is a strong **correlation** between the *cnm*-gene positive *S Mutans* in the oral cavity, and **cerebral microbleeds.**

Study 6

Results showed that the *cnm*-positive collagen binding activity of the ***S. Mutans*** was related to the occurrence of Cerebral microbleeds and is a **risk factor** for the **decline in cognitive function**.

CONCLUSION

The overall health of the body is connected to the oral cavity. Studies included in this research established that bacteria in the mouth are interconnected with intracranial aneurysms, ischemic strokes, dementia, cognitive decline as well as cognitive impairment. This research demonstrates the importance of the Dental Hygienist in assisting patients to better their overall health status by improving their oral condition.

When oral pathogens decrease, the patient is less likely to have:

- Aneurysms
- Strokes
- Cognitive decline as well as impairment

When oral pathogens increase, the patient is more likely to have:

- Aneurysms
- Strokes
- Cognitive decline as well as impairment

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