Ozone und happy Aging - The prevention of neurodegeneration through the local and systemic use of ozone in dentistry.

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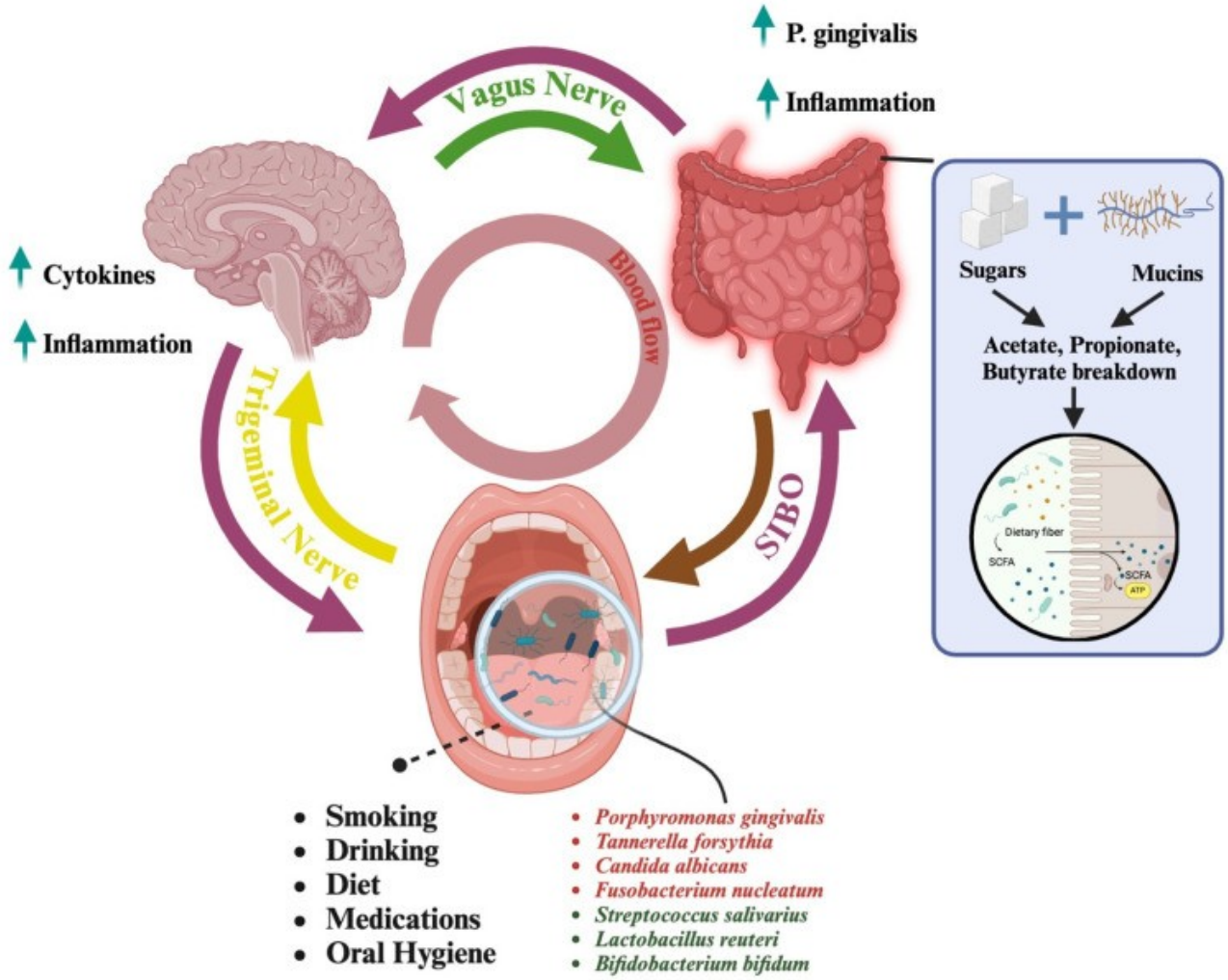
Introduction:

The dysbiosis of the oral microbiome contributes to oral and systemic inflammation, disrupts the blood-brain barrier, and promotes neuroinflammation via the mouth-brain and mouth-gut-brain axis:



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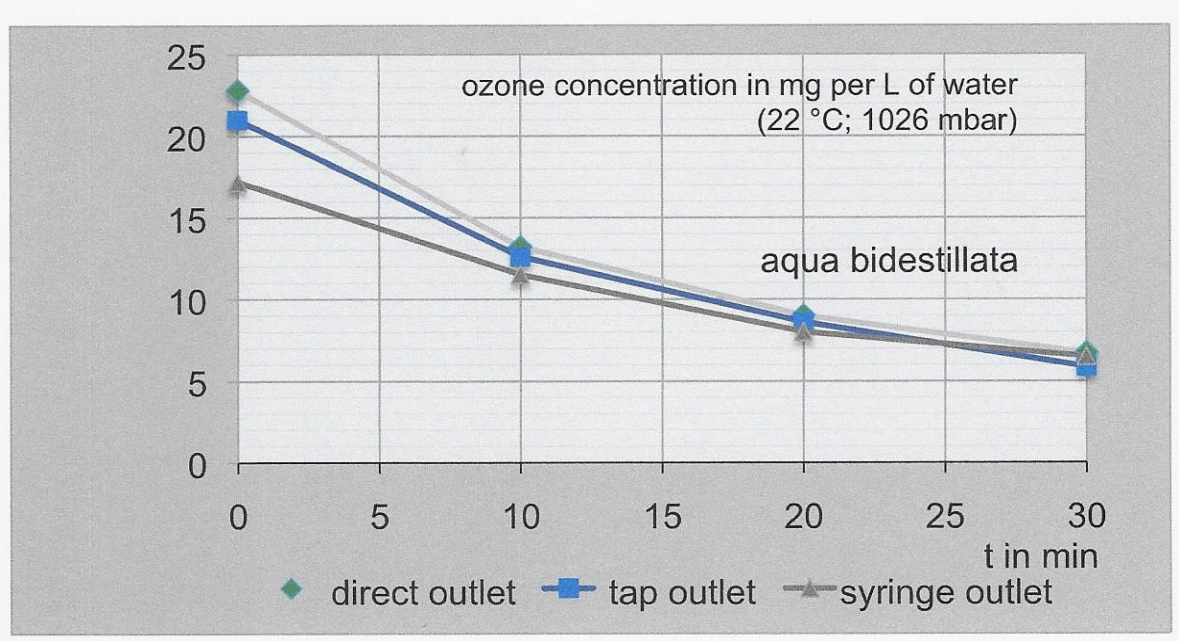
Oral pathogens such as Porphyromonas gingivalis contribute to neuroinflammation together with lipopolysaccharides (LPS) and gingipains, while metabolic byproducts such as short-chain fatty acids (SCFAs) and peptidoglycans enhance systemic immune activation. Diet, pH balance, medication intake, smoking, alcohol consumption, and oral hygiene influence the diversity and stability of the oral microbiome.
Positive effects of local and systemic use of ozone in medicine and dentistry on the inflammatory status and composition of the microbiome are scientifically proven. Locally, ozone is administered in the oral cavity in the form of ozonized water, ozonized water-oxygen spray, and ozonized olive oil, which are safe and easy to use. Clinical experiences show good results in all areas of dentistry. Systemically, ozone is used in a low concentration range of 10 to 30 µg/ml x 50ml as autologous blood therapy (MAH) or x 150-300ml as rectal insufflation (RI).

Materials and Methods:

Preparation of ozonated water for local therapy
(Viebahn-Hänsler, 2016)



Therapy examples are explained using visual material:

Ozonized water in professional dental cleaning and systemic periodontitis therapy, ozone in caries therapy, ozone in wound healing, ozone in endodontics, ozone in alveolitis, ozonated water in oral surgery and NICO therapy.

Results, discussion and conclusion:

Dysbiotic biofilms that form on the outer and inner surfaces of teeth and implants can accumulate over a lifetime if they are not controlled by professional dental cleaning under ozonated water rinsing, lifelong optimal oral hygiene, and symbiosis management through diet and lifestyle.
Ozone, administered locally, can reduce dysbiotic microbial burdens and decrease toxic loads. Ozone, administered systemically, can reduce inflammation and activate regulation and detoxification. Recent scientific publications demonstrate the crucial importance of eliminating oral dysbiosis for the prevention of neurodegenerative diseases. Ozone plays a key role in this, especially in the elimination of toxic microbial metabolic products from the jaw bone marrow.