Patent Search

Invention Title	A BIOSENSOR BASED PROSTHETIC PALATAL APPLIANCE TO CONTROL ASPIRATION IN PERSONS WITH STROKE
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Abstract:

ABSTRACT The present invention describes a biosensor based prosthetic palatal appliance to control aspiration in persons with stroke and working method thereof. In the present invention, a biosensor coated prosthetic appliance which can detect the entry of food and fluid particles beyond the Oro-pharyngeal region. Besides, such system will a provide a signal system to the user which shall be based on the feed forward mechanism. It means, the proposed device shall act as an alarm system which can detect entry of the food and fluid particles beyond the voluntary phase of swallowing i.e., Oro-pharyngeal stage of swallowing.

Complete Specification

DESC:FIELD OF INVENTION:
This invention generally relates to the field of the biosensor based prosthetic palatal appliance and working method thereof, and more particularly relates to a biosensor based prosthetic palatal appliance to control aspiration in persons with stroke.
BACKGROUND OF THE INVENTION
Stroke is the second most prevalent cause of death which also causes permanent disability in the survivors. The lifetime risk of developing a stroke has doubled in last 17 years and now One out of four people is estimated to have a stroke in their lifetime. Aspiration and penetration of foreign particles beyond laryngeal region is a crucial concern in persons having stroke, cleft lip and palate, oral malignancy, and other neurogenic conditions. This condition causes severe complication which can lead to fatality as well. Several acrylic based prosthetic materials are already available which are clinically prescribed. However, the efficacy of these materials is not optimally satisfying. Thus, there is a need for development of a biosensor coated prosthetic appliance which can detect the entry of food and fluid particles beyond the Oro-pharyngeal region. Besides, such a system will also provide a signal system to the user which shall be based on the feed forward mechanism. It means, the proposed device shall act as an alarm system which can detect entry of the food and fluid particles beyond the voluntary phase of swallowing i.e., Oro-pharyngeal stage of swallowing.
There are few references made to the present invention as given below:
US10470847B2 discloses detection of placement of dental aligners in patient mouth on teeth for indication of wearing compliance. Described herein are apparatuses and methods for detecting wearing, including compliance, and for reliably transferring data, by wired or wireless direct or indirect communication of electronic compliance information to a smartphone. Also described herein are dental appliances that can detect physiological parameters related to respiration and sleep. Also described herein

View Application Status