

Pulse Oximetry: A New Tool in Pulpal Vitality Testing

Smita D. Dutta, Rahul Maria

Department of Conservative & Endodontics Dentistry, Rishiraj College of Dental Sciences & Research Centre, Bhopal

Abstract:

Over the years, the thermal and electrical tests have been considered to be a suitable means of assessing the vascularity and vitality of the tooth pulp. Pulse oximetry is an effective, objective, oxygen saturation monitoring technique broadly used in medicine for recording blood oxygen saturation levels. It can also be used in endodontics for differential diagnosis of vital pulps and necrotic ones. However, there are some limitations inherent in the technology of pulse oximetry, such as the effect of increased acidity and metabolic rate, which causes deoxygenating of hemoglobin and changes in blood oxygen saturation, also movements of the body or probe can complicate readings. This test produces no noxious stimuli, therefore, apprehensive or distressed patients may accept it more readily than routine methods. A review of the literature and a discussion of the potential application of this system in endodontics is presented.