Low-Level Laser Therapy Applied to Dysphagia

Roberta Busch
Hospital Moriah, Brazil

Low-Level Laser Therapy (LLLT) has been used in the speech-language clinic as an additional resource to aid the therapeutic results. This tecnology uses a non-ionizing wavelenght that does not cause harm to cells but stimulates them when ligth is absorbed by chromophores in mitochondria, regulating the cellular metabolism. The low-level laser device red ligth is used on superficial tissues and the infrared ligth on the deep ones, such as muscles and nerves. The cells wich are in oxidative stress, when absorb the ligth, increase the production of adenosine triphosphate (ATP), promoting the muscular activation, reducing the fatigue, the production of free radicals, inflamatory processes and edema. The laser stimulates the cell's methabolism regulation and associated with convencional therapy can improve muscles performance and regulate functions that are at risk. Thus, when applied on the muscles that participate in swallowing, can improve the lip seal, antero-posterior movement of tongue, elevation of the larynx and glottic closure, reducing the risk of traqueal aspiration, specially when associated with muscular exercises. When applied on the salivary glands, may reduce or increase saliva production, depending on the dosage applied. The red laser also can be used on radial arthery - Intravascular laser irradiation of blood modified or transdermic (ILIB), as it has been adapted in Brazil, favors the increase of blood flow, resulting in an improvement of alertness level, the capacity to eliminate secretions and increase voluntary swallow frequency. Three clinical cases will be presented, demonstrating the application of the laser associated with the exercise to orofacial myofunctional, to reduce saliva therapy and increase

Biography

Dr. Roberta Busch is a Speech Therapist and Master in Neurosciences and presently she is working as a Speech Pathologist in Moriah Hospital and IGESP Hospital and she is an active Founding partner of CAAD - Advanced Care Center in Dysphagia, São Paulo, Brazil. She has an experience as a graduate and post-graduation teacher and also work as clinical therapist on dysphagia of adults patients which neurological disease.

contato@robertabusch.com.br
robusch@uol.com.br