

عنوان مقاله:

Study of Reaction in the Biological Components of Breast Exposed to Light Source Near-Infrared Wavelength

محل انتشار:

دهمین کنگره بین المللی سرطان پستان (سال: 1393)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Maede Maede - *M.S. student, Department of Medical Physics, Faculty of Medical Sciences, University of, Tabriz, Tabriz, Iran*

Parinaz Mehnati - *Associate Professor, Department of Medical Physics, Faculty of Medical Sciences University of, Tabriz, Tabriz, Iran*

Mohammad Sadegh Zakerhamidi - *Associate Professor, Department of Photonic, Faculty of Sciences, University of Tabriz, Tabriz, Iran*

Karim Shamsasenjan - *Associate Professor, Department of Hematology, Faculty of Medical Sciences, University of, Tabriz, Tabriz, Iran*

خلاصه مقاله:

Introduction and Objectives: The response of the breast tissue including glandular and fat cells, milk ducts and blood vessels to near-infrared light source were studied. Any changes of absorption can be as a prognosis assay in breast tissue. **Methods:** The study was performed on samples of water, milk, fat, oxygenated hemoglobin using a spectrometer (USB4000 Fiber Optic Spectrometer, USA) and near-infrared light source from LED (Phwee). The experimental material inserted in to the main and minor blood vessels which arranged in the breast phantom. **Results:** A specific change in the optical density of the components of the breast tissue was observed. The absorption values were obtained for hemoglobin oxygenation: 1.12, water: 0.7, Milk: 1.07 and fat: 0.8. **Conclusion:** This method can be used to check the different values of accountability, increased hemoglobin levels in cancerous tissue. Even breastfeeding mothers suspected to breast cancer can use this invasive and safe method for presentation of .distribution of blood vessels and milk ducts

کلمات کلیدی:

absorption, blood, breast cancer, spectrometers

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/726618>

