

# **EFFECT OF PHOTOBIMODULATION ON VULVOVAGINAL ATROPHY IN WOMEN IN POST-MENOPAUSE: A RANDOMIZED AND CONTROLLED TRIAL**

Authors: Marina Bertoni Guerra, Marcos Momolli, Ana Paula Ligeiro de Oliveira

Nove de Julho University

## **Abstract:**

Menopause is a physiological event and is defined as the loss of ovarian follicular activity, with consequent permanent cessation of menstrual cycles. Its diagnosis is made retrospectively after 12 months of amenorrhea, with no pathological cause involved. This period is marked by several changes in the female organism, mainly the genitourinary syndrome (GUS), which is a collection of signs and symptoms resulting from the state of hypoestrogenism. Almost half of postmenopausal women will experience symptoms of GUS, with vaginal dryness being the most prevalent, followed by dyspareunia and vulvovaginal irritation. The aim of the study is to evaluate the effect of photobiomodulation with red LED (light emitting diode) on the symptoms of vulvovaginal atrophy in postmenopausal women. A randomized and controlled clinical trial will be developed, which will include postmenopausal women with signs and symptoms of vulvovaginal atrophy. Participants will be allocated into two groups: those who will undergo photobiomodulation with intravaginal LED, and those who will receive vaginal cream with estriol. Objective and subjective improvement of atrophy will be assessed using the Vaginal Health Index and the visual analog scale, respectively. Vaginal pH, cell maturation index and changes in sexual function through the Female Sexual Function Index questionnaire will also be assessed. The variables will be analyzed at the time of admission, in one and three months after the intervention.

## **Biography**

Marina Bertoni Guerra is a doctorate student in Biophotonics Program applied to Health Sciences at Nove de Julho University, São Paulo, Brazil. She is a gynecologist and obstetrician, graduated from the Hospital de Clínicas de Porto Alegre. And her subspecialty is in the area of Fetal Medicine. She currently works as a gynecologist and obstetrician in the city of São Paulo. Her primary research interests are in the field of women's health.