

PERSONALIZING TREATMENT FOR HIGH-GRADE CERVICAL PRECANCEROUS LESIONS CAUSED BY HUMAN PAPILLOMAVIRUS

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Cervical cancer is the third fourth most common cancer in women in Brazil and fourth globally. Cervical Intraepithelial Neoplasia (CIN) is precursor of this cancer with human papillomavirus (HPV) presented in almost all the cases. CINs are classified according to the severity of the injury: CIN I (low grade) and CIN II and III (high grade). Excisional techniques such as high-frequency surgery are recommended by the National Cancer Institute (INCA) in women with high-grade CINs and aged over 25 years. These excisional therapies are effective but can carry the risk to woman and to future pregnancy with major destruction and removal of the cervical stroma, causing trauma to underlying tissues with formation of rough flaps, cervical canal stenosis. This clinical trial is offering an individualized treatment with Photodynamic Therapy (PDT), a conservative procedure that acts through the direct action of Reactive Oxygen Species (ROS) produced in the tissue, promoting the destruction of neoplastic cells. We are acting treating women with HPV-induced lesions since 2008 and since 2012 treating high-grade CIN and the innovation of this project now is its applicability in the public health system. Thirty-one women with CIN 2/3 were randomized in three different protocols. The most promising results in a six-months follow up were in a protocol with two PDT sessions with twenty-one days apart and HPV hybrid capture 120 days after the second treatment. Our study suggests that PDT is a promising alternative to excisional therapies for high-grade cervical dysplasia, as it is less invasive, more conservative, and more affordable. However, our study had some limitations, such as the small sample size, the short follow-up period, and the lack of a control group. Nowadays we will correlate each case individually with the response to therapy following by colposcopy, cytology, PCR and the immunohistochemical markers p16 and Ki67.