

NEOADJUVANT CHEMOTHERAPY PLUS RADICAL HYSTERECTOMY VERSUS CHEMORADIATION FOR STAGE IB2 CERVICAL CANCER: THE INSTITUTO NACIONAL DE ENFERMEDADES NEOPLÁSICAS (INEN) - PERÚ EXPERIENCE

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Background: The standard management of locally advanced cervical cancer (LACC) is concurrent chemoradiation. However, in many regions of Latin America, Africa and other low and middle-income countries (LMICs) there is a lack of radiotherapy equipment and trained personnel and alternative treatments are therefore needed. Neoadjuvant Chemotherapy (NACT) plus radical hysterectomy is one alternative treatment that has been previously reported but not universally adopted in LMICs.

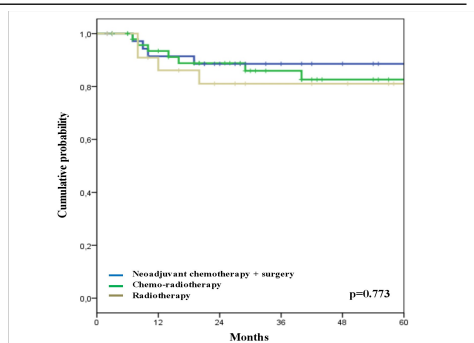
Hypothesis: NACT plus radical hysterectomy has similar OS and DFS rates compared with concurrent chemoradiation for stage IB2 cervical cancer.

Method: The study is a retrospective comparative study of 121 patients diagnosed with stage IB2 squamous cell or adenocarcinoma of the cervix. Patients treated between 2002 and 2013 were included and analyzed by treatment modality: radiotherapy alone (n=24), chemoradiation (n=51) and NACT plus radical hysterectomy (n=46). Five patients from the NACT group were excluded because they did not receive treatment or were lost to follow-up. Overall survival (OS) and disease-free survival (DFS) rate were estimated and compared between groups.

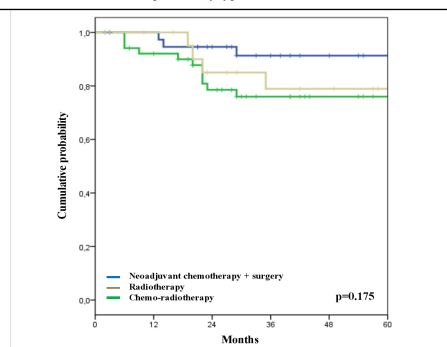
Results: Of the 41 patients who received NACT, 90.2% of patients had response to chemotherapy and underwent radical hysterectomy 90.2 %, and 8.1% received radiotherapy after surgery. There were no significant differences in 5-year DFS between patients who received radiotherapy alone, chemoradiation and NACT plus radical hysterectomy (81.0%, 82.6% and 88.6% respectively) $p=0.773$ (Figure 1). There also were no significant differences in 5-year OS between patients who received radiotherapy alone, chemoradiation and NACT plus radical hysterectomy (78.9%, 76% and 91.3% respectively, $p=0.175$) (Figure 2). We also compared patients who received NACT with a complete response (CR) or partial response (PR) who underwent radical hysterectomy with patients who underwent chemoradiation and noted no differences in 5-year DFS (96.2% and 82.6% respectively, $p = 0.134$) (Figure 3). However, 5-year OS was higher for the NACT with CR and PR followed by radical hysterectomy (96.2%) compared with chemoradiation group (76.0%) $p = 0.038$ (Figure 4).

Our results suggest that NACT followed by radical hysterectomy achieved OS comparable with chemoradiation and radiotherapy alone for patients with stage IB2 cervical cancer. Further study is warranted to determine if NACT followed by surgery can be used routinely as an alternative to chemoradiation for the treatment of LACC in LMICs where radiotherapy services are often not available.

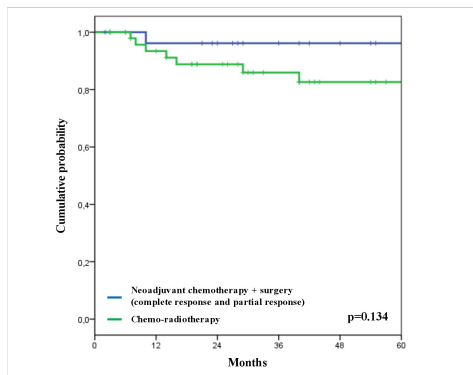
Graphic 1. Disease free survival for all patients by type of treatment received.



Graphic 2. Overall survival for all patients by type of treatment received.



Graphic 3. Disease free survival for patients receiving neoadjuvant chemo-radiotherapy (complete response and partial response) versus chemo-radiotherapy.



Graphic 4. Overall survival for patients receiving neoadjuvant chemo-radiotherapy (complete response and partial response) versus chemo-radiotherapy.

