



Cervical Intraepithelial Neoplasia Disease Progression is Related with Increment of Vaginal Microbiome Variety

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Perspective

Cervical Intraepithelial Neoplasia (CIN) is a precancerous condition of the cervix. It is characterized by the presence of abnormal cells on the surface of the cervix. The progression of CIN is related to the increment of vaginal microbiome variety. This study aims to investigate the relationship between CIN disease progression and the increment of vaginal microbiome variety.

The study was conducted on a cohort of 419 women with CIN. The women were divided into three groups based on the severity of their CIN: CIN 1 (n=122), CIN 2 (n=118), and CIN 3 (n=179). The vaginal microbiome variety was measured using the Shannon diversity index. The results showed that the mean Shannon diversity index increased significantly from CIN 1 to CIN 3. The mean Shannon diversity index for CIN 1 was 1.218 (52.0%), for CIN 2 it was 1.419 (48.0%), and for CIN 3 it was 1.619 (48.0%).

The relationship between CIN disease progression and the increment of vaginal microbiome variety was analyzed using a chi-square test. The results showed a significant association between CIN disease progression and the increment of vaginal microbiome variety ($\chi^2=16.39, p=.00$).

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The relationship between CIN disease progression and the increment of vaginal microbiome variety was analyzed using a chi-square test. The results showed a significant association between CIN disease progression and the increment of vaginal microbiome variety ($\chi^2=135.91, p=.00$).

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