## Polycystic Ovary Syndrome: Cervical Cytology Features and Its Association with Endometrial Cancer

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**Abstract :** Polycystic ovary syndrome has been associated with multiple disorders such as endocrine disorder, metabolic syndrome, infertility, and endometrial cancer. Women with polycystic ovary syndrome (PCOS) are anticipated to develop three times more chances for endometrial cancer than women without PCOS. This study, therefore, was conducted to determine the association between polycystic ovary syndrome and endometrial cancer and to determine the cervical cytology features of PCOS. Patients attending the Subfertility Clinic of the National Population and Family Development Board were recruited and examined physically by medical practitioners. They were categorized into two groups; i) the PCOS group if they met Rotterdam Criteria 2004 and ii) the control group if they did not meet Rotterdam Criteria 2004. Cervical sampling was done on all patients via the Liquid-Based Cytology (LBC) method in the pre-and post-subfertility treatment. A total of 167 patients participated in the study, of which 79 belonged to the PCOS group and 88 to the control group. The findings showed no cervical and endometrial cancer cases in both groups. The Liquid-Based Cytology results in the PCOS group displayed more cases with cellular changes, i.e., benign inflammation, atrophic smear and Candida sp. infection. To conclude, no association was found between polycystic ovary syndrome and endometrial cancer. A more holistic study with a higher number of participants can further determine the association between endometrial cancer and PCOS. Furthermore, a longer duration between LBC pre-and post-subfertility treatment should be implied to observe changes in the cervical cells.

Keywords : endometrial cancer, liquid-based cytology, PCOS, polycystic ovary syndrome

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