

Endometrial Biopsy Curettage vs Endometrial Aspiration: Better Modality in Female Genital Tuberculosis

Authors : Rupali Bhatia, Deepthi Nair, Geetika Khanna, Seema Singhal

Abstract : Introduction: Genital tract tuberculosis is a chronic disease (caused by reactivation of organisms from systemic distribution of Mycobacterium tuberculosis) that often presents with low grade symptoms and non-specific complaints. Patients with genital tuberculosis are usually young women seeking workup and treatment for infertility. Infertility is the commonest presentation due to involvement of the fallopian tubes, endometrium and ovarian damage with poor ovarian volume and reserve. The diagnosis of genital tuberculosis is difficult because of the fact that it is a silent invader of genital tract. Since tissue cannot be obtained from fallopian tubes, the diagnosis is made by isolation of bacilli from endometrial tissue obtained by endometrial biopsy curettage and/or aspiration. Problems are associated with sampling technique as well as diagnostic modality due to lack of adequate sample volumes and the segregation of the sample for various diagnostic tests resulting in non-uniform distribution of microorganisms. Moreover, lack of an efficient sampling technique universally applicable for all specific diagnostic tests contributes to the diagnostic challenges. Endometrial sampling plays a key role in accurate diagnosis of female genital tuberculosis. It may be done by 2 methods viz. endometrial curettage and endometrial aspiration. Both endometrial curettage and aspirate have their own limitations as curettage picks up strip of the endometrium from one of the walls of the uterine cavity including tubal ostial areas whereas aspirate obtains total tissue with exfoliated cells present in the secretory fluid of the endometrial cavity. Further, sparse and uneven distribution of the bacilli remains a major factor contributing to the limitations of the techniques. The sample that is obtained by either technique is subjected to histopathological examination, AFB staining, culture and PCR. Aim: Comparison of the sampling techniques viz. endometrial biopsy curettage and endometrial aspiration using different laboratory methods of histopathology, cytology, microbiology and molecular biology. Method: In a hospital based observational study, 75 Indian females suspected of genital tuberculosis were selected on the basis of inclusion criteria. The women underwent endometrial tissue sampling using Novaks biopsy curette and Karmans cannula. One part of the specimen obtained was sent in formalin solution for histopathological testing and another part was sent in normal saline for acid fast bacilli smear, culture and polymerase chain reaction. The results so obtained were correlated using coefficient of correlation and chi square test. Result: Concordance of results showed moderate agreement between both the sampling techniques. Among HPE, AFB and PCR, maximum sensitivity was observed for PCR, though the specificity was not as high as other techniques. Conclusion: Statistically no significant difference was observed between the results obtained by the two sampling techniques. Therefore, one may use either EA or EB to obtain endometrial samples and avoid multiple sampling as both the techniques are equally efficient in diagnosing genital tuberculosis by HPE, AFB, culture or PCR.

Keywords : acid fast bacilli (AFB), histopathology examination (HPE), polymerase chain reaction (PCR), endometrial biopsy curettage

Conference Title : ICOG 2014 : International Conference on Obstetrics and Gynaecology

Conference Location : London, United Kingdom

Conference Dates : September 26-27, 2014