P270. Is it possible to diagnose endometriosis at the level of endometrium?

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Endometriosis is one of the most common conditions in women suffering from fertility problems, characterized by occurrence of endometrial tissue in ectopic locations. Anatomically, endometrium is the innermost layer of the uterine wall – this location accounts for satisfying accessibility for biopsy. Eutopic endometrium exhibits molecular deviations specific for endometriosis, therefore, it is justified to look for biomarkers at this level. The aim of this study was to determine potential diagnostic biomarkers for endometriosis. Looking beyond obsolete, single-parameter analysis, we focused on models reflecting condition's complexity and the complementary character of molecular foundation and clinical presentation. Our main purpose was to identify more sensitive and non-invasive methods enabling early diagnosis, contributing to the reduction of medical care costs. A prospective, observational, case-control study of Caucasian women in reproductive age was performed.

Based on literature review, a set of endometrial angiogenic and growth factors was established (VEGF-A, NGF, IL-8, ARO1 and PDGF-A) whose mRNA expression was then evaluated with the use of qRT-PCR. Only patients in their first menstrual cycle phase were included, following histopathological examination. As for clinical component, the study group was divided into the following subgroups: endometriosis and infertility (EIN), endometriosis and chronic pelvic pain syndrome (EIZ), endometriosis, infertility and chronic pelvic pain syndrome (EINZ). Estimation of pain severity was based on VAS (Visual Analogue Scale). Assessment of endometriosis-related symptoms and risk factors was performed using a questionnaire. Patients had undergone diagnostic or diagnostic and therapeutic laparoscopy prior to qualification for the study. The study group comprised women with laparoscopically confirmed endometriosis, whereas the control group consisted of women with normal image of pelvis minor. Endometriosis was assessed according to the American four-stage classification system, rASRM 1996 (The Revised American Society for Reproductive Medicine classification of endometriosis). Both groups were comparable with respect to age. At the molecular level, expression of NGF was the most promising when considering a potential biomarker for endometriosis. Combination with clinical presentation improves the specificity of created biomarker set. Detailed data supported by appropriate statistical analysis will be presented.

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