characgteristics were recorded and they were then followed to check for polyp recurrence by transvaginal ultrasound scan 3 months,6 months,9 months and 12 months after the operation.

RESULTS: One hundred and one cases for multiple EP group and 81 single EP cases were enrolled. Patients' ages were lower in the multiple group than in the single group(34.4±5.7 versus 36.75±6.4,P<0.05). Other baseline parameters were all comparable between two groups. After one year of follow up, 46% (95%CI, 34% -57%)of patients from multiple EP group had polyp recurrence, while only 13%(95%CI, 5%-22%) of patients recur in the single EP group, P<0.05. Furthermore ,the polyp recurrence rates from multiple EP group were also significantly higher than single EP group in each follow-up time intervals with 9.8% vs.1.3% after 3 months, 20% vs. 4.1% after 6 months and 33.1%vs.11.5% after 9 months.COX regression analysis revealed that multiple polyps (HR3.5, 95%CI 1.4-8.5, P<0.01), endometriosis (HR2.4,95%CI 1.1-5.4, P<0.05) and history of polypectomy (HR2.2,95%CI 1.0-4.6, P<0.05) were significantly predictors for polyp recurrence after polypectomy, while patients' age, BMI, gravida, parity, polycystic ovary syndrome and leiomyoma were not associated with polyp recurrence.

CONCLUSIONS: Multiple polyps, endometriosis and history of EPs were associated with a greater potential of polyp recurrence after hysteroscopic polypectomy. Patients with excessive growth of multiple EPs were much more vulnerable to polyp recurrence than those with single polyp, indicating that these two different types of polyps may possibly arise by a different etiology and pathogenesis.

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IS THE ENDOMETRIUM THE KEY TO REALIZING THE TRUE BENEFITS OF PREIMPLANTATION GENETICALLY SCREENED (PGS) EMBRYOS IN FROZEN EMBRYO TRANSFER (FET) CYCLES?

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OBJECTIVE: The objective of this study was to assess the endometrial biopsy (EB) findings with the transfer of a single euploid embryo with the ongoing pregnancy rate.

DESIGN: Retrospective cohort study

MATERIALS AND METHODS: Patients who had PGS on day 5 or day 6 followed by vitrification and then had a subsequent single embryo transfer in an FET hormonal replacement (HR) cycle were included in the study. FET cycles consisted of hormone replacement (HR) with 8 mg of estradiol and 100mg of progesterone (P) IM with 400mg suppositories BID or 8% P gel. The patients were categorized into 2 Groups. Group 1: patients who went straight into a FET cycle without an (EB) or a Mock cycle (MC). Group 2: patients who had a MC with an in phase EB prior to their FET cycle. Group 1 patients who failed to implant during their first cycle had a MC on the same HR protocol following their failed FET cycle. Mock cycles were repeated on all out of phase biopsies on both groups until they reported as in phase before an embryo transfer was scheduled. All biopsies for the MC were done after 9 days of P supplementation and considered out of phase if EB > 2 days ahead or behind cycle day 24 or dyssynchronous. Hormonal adjustments were made until the EB was reported as in phase.

RESULTS: One hundred fifty three patients underwent PGS with freeze all blastocysts followed with a single embryo FET cycle. One hundred eighteen patients had a transfer without an assessment of the endometrium (Group 1) prior to transfer. An ongoing pregnancy occurred in sixty five or 55%. Mock cycles were performed on the 36 patients with negative hCG tests in Group 1 with 14 or 38.8% having a biopsy reported as out of phase. Sixteen out of 22 or 84% patients in Group 1 conceived with an ongoing pregnancy on their subsequent FET cycle after their EB was in phase. Sixty one patients had a MC with an in phase EB (Group 2) prior to their FET cycle. Fifty five out of the 61 patients or 90% ($p < 0.05$) conceived with an ongoing pregnancy. Twenty seven out of the 61 patients or 44% initially had an out of phase biopsy before transfer.

CONCLUSIONS: The ability for any embryo to implant requires an in phase endometrium synchronized with the developmental stage of the embryo. As PGS improves our selection process evaluating the endometrium of failed HR FET cycles or prior to transfer may lead to improved pregnancy rates maximizing the benefits of PGS.

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ENDOMETRIAL GENE EXPRESSION IN PATIENTS WITH RECURRENT IMPLANTATION FAILURE.

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OBJECTIVE: To assess endometrial gene expressions of patients with reccurent implantation failure (RIF) and discover which genes may be involved in implantation failure.

DESIGN: prospective cohort study.

MATERIALS AND METHODS: 24 patients with RIF from IVF clinic and 21 fertile control patients from the gynecology clinic of Istanbul University School of Medicine had endometrial biopsies with pipette during the window of implantation (day 19-23). mRNA fractions were extracted. Microarray analysis was performed with Agilent/Sureprint G3 Human GE2 8x60K. Data was analyzed with R package Limma. Differentially-expressed probes that met the criteria: $1 \leq \log_2$(fold change) and their adjusted p value $\leq .05$ were considered significant. Pathway enrichment analysis was conducted using PANOGA.

RESULTS: 699 differentially-expressed probes corresponding to 607 differentially-expressed genes (DEGs) were identified. The 10 most DEGs (5 up- and 5 down-regulated) out of 607 DEGs are represented in Table 1. From 607 DEGs, 40 functional pathways were found enriched via PANOGA. As some were related, we clustered the enriched pathways. 17 biologically relevant pathways were determined as representative pathways. Then, we ranked pathways according to their ability to discriminate patients with RIF from controls.The three most highly ranked pathways were Adherens junction, Shigellosis and Cell cycle pathways. They were 2 genes in common in the Adherens Junction and Shigellosis pathways: ACTB and WASF1, both of which were up-regulated in patients with RIF.

CONCLUSIONS: Using endometrial microarray gene expression to study RIF patients, we demonstrated 607 differentially-expressed genes, involved in 40 functional pathways. The top 25 DEGs show 16 DEGs that were up-regulated and 9 down-regulated in RIF patients compared to control. Two genes, ACTB and WASF1, both up-regulated in patients with RIF, could be consistently used to discriminate RIF patients from control fertile patients.

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EFFECT OF MIFEPRISTONE ON THE TRANSCRIPTOMIC SIGNATURE OF ENDOMETRIAL RECEPTIVITY.

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OBJECTIVE: Progesterone receptor modulators (PRM) are known to alter endometrial receptivity. Mifepristone, a well known PRMs, impairs endometrial receptivity at a dose of 200 mg immediately after ovulation (1). We aimed to study the effect of mifepristone on endometrial receptivity targeting the expression of genes that composed the signature of endometrial receptivity in the endometrial receptivity analysis (ERA) test.

DESIGN: We analyzed the transcriptomic signature of endometrial biopsies obtained in natural cycle during the window of implantation from 7 women treated with mifepristone (T) and 11 women with proven fertility and without treatment (C). Gene expression data from T samples were compared to proliferative reference transcriptomic signature (P).

MATERIALS AND METHODS: Endometrial biopsies were obtained at LH+7 in natural cycle. For mifepristone treatment, it was administered 200 mg starting at LH+2. RNA was extracted by Quick-RNA microprep (Zymo Research) as per the manufacturer's protocol. All the samples were DNAse treated, and cDNA was obtained by retrotranscription and analysed by customized assay on IonTorrent Next Generation Sequencing, for 236