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PURPOSE & OBJECTIVES

Chronic Endometritis(CE) is a silent condition affecting upto 68% infertile women. Hysteroscopy with Immunohistochemistry has led to better diagnosis. Recent Studies link uterine microbiome to CE & Antibiotic therapy is frontline treatment. However, side effects of using antibiotics are iatrogenic gut microbiota disturbance & mainly depletion of pro-implantation microbiota. Adding oral synbiotics alongside antibiotics alleviates decline of beneficial bacteria allowing commensals Lactobacillus spp. to home-in earlier leading to improved outcomes.

MATERIAL & METHODS

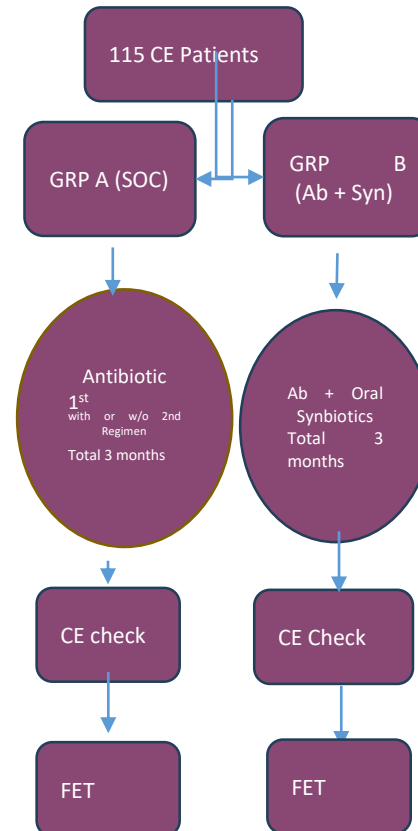
280 patients with RIF screened.115 CE positive.
 115 CE patients (49 group A & 66 group B) underwent a two-arm RCT
 Patients from both groups underwent hysteroscopy and antibiotic treatment 2 months Doxycycline BD 21 days, after that repeat hysteroscopy and IHC CD138 . CD138 still positive, additional Ciprofloxacin BD 14 days.
Group A received antibiotic treatment and Group B received antibiotic treatment + oral synbiotic capsules (marketed Pregbiome) containing 10^3 CFU Lactobacillus gasseri, 10^3 CFU Lactobacillus rhamnosus, and 10^3 CFU Lactobacillus jensenni for 3 months.
 These women underwent IVF and had embryos frozen on Day 3 or Day 5 prior to CE diagnosis. Post treatment in Group A or B, day 3 or day 5 embryos were transferred in a frozen embryo transfer cycle.

RESULTS

A students T-Test performed for significance between **Group A (Antibiotics Only) [Standard of care (SOC) & Group B (Antibiotics+Synbiotics) : Treatment Group** for CRP , Ut. PI and FI. Independent ANOVA analysis run to evaluate differences in variances. Cohen's d test done.

Significant differences in pre-implantation markers CRP and FI were seen as below:

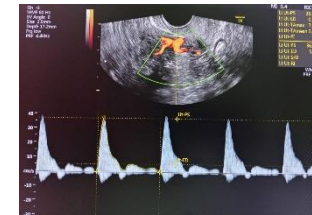
Mean CRP group A reduced from 13.03 to 7.02 ($p = NS$)
Mean CRP group B reduced from 16.85 to 2.76 ($p<0.0001$).
 Mean FI increased group A from 15.87 to 25.65 ($p<0.01$)
Mean FI increased group B from 17.32 to 27.07 ($p<0.001$).
Effect size FI is 3.18 for SOC Group A vs 3.57 for Treatment Group B
Odds ratio 1.12 grp A : B. Ut. PI No differences Noted.



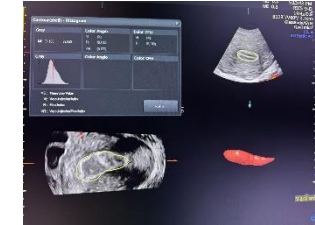
PREGNANCY OUTCOMES

Group B had higher OPR (31.81%) than group A (10.20%) ($p<0.01$) and Lower MR (Group B (4.54%) than Group A (18.36%)).
 Adverse outcomes, Funneling, SCH (subchorionic hematoma), pre-term birth rates were similar

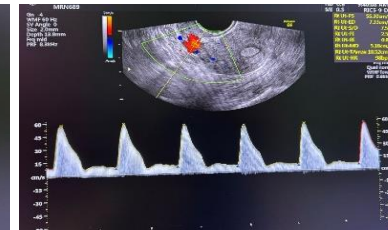
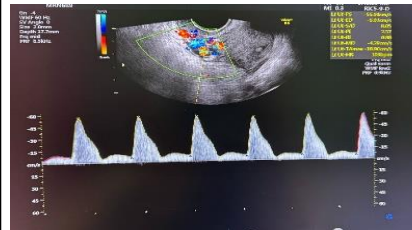
Group B Pre Uterine Artery Doppler



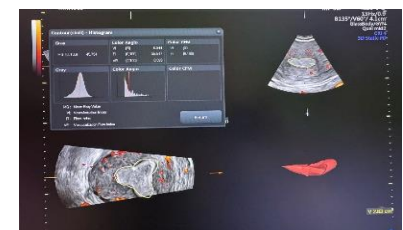
Group B Pre FI



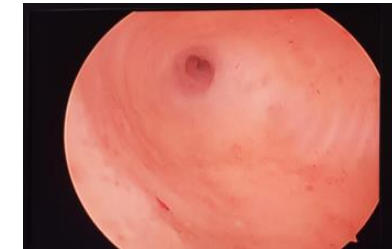
Group B Post Uterine Artery Doppler



Group B Post FI



Hysteroscopy Before



Hysteroscopy After

CONCLUSION

Infertile Patients with Chronic Endometritis & Recurrent Implantation failure have Higher Pregnancy Outcomes post Antibiotic + Synbiotics treatment compared to Antibiotics alone. Significant Improvements are displayed with **3 times higher Ongoing pregnancy with 4 times lower miscarriage rates.**