

## **Spontaneous Pregnancy Rates After Hysterosalpingogram and Saline-Infusion Sonohysterogram in Infertile Women**

### **Introduction**

Hysterosalpingogram (HSG) is the gold standard for non-surgical evaluation of tubal patency, with studies demonstrating increased likelihood of spontaneous conception after HSG. Salineinfusion sonohysterography (SIS) is an alternative to HSG for assessment of tubal patency in patients at low risk of tubal disease. We present a pilot study comparing spontaneous pregnancy rates after HSG and SIS in infertile women at low risk for tubal disease.

### **Methods**

Retrospective cohort study of spontaneous pregnancy rates after HSG and SIS at a single academic institution between 2016-2019. Study population included reproductive age women undergoing infertility evaluation with HSG or SIS. Exclusion criteria were risk factors for tubal disease, pelvic adhesions, male factor infertility, and lost to follow-up. Logistic regression analysis was used to compare the spontaneous pregnancy rates after either HSG or SIS.

### **Results**

969 patient records were identified. 170 patients met inclusion criteria. 93 underwent HSG and 77 underwent SIS. Mean age of HSG group was 31.2 years (SD±4.6), and of SIS group was 32.4 years (SD±4.2). 26 patients spontaneously conceived after HSG, 21 after SIS. An 11 percent increase in spontaneous pregnancy after HSG compared to SIS was demonstrated but was not statistically significant as defined by p value less than 0.05.

### **Conclusion/Implications**

Our study demonstrated comparable spontaneous pregnancy rates in infertile women at low risk for tubal disease after both traditional HSG and the newer alternative, SIS. Due to limitations of our retrospective study design, further assessment of the difference between these two methods is warranted in prospective randomized studies.