

## SALINE INFUSION SONOGRAPHY (SIS) AS A GOLD STANDARD DIAGNOSTIC TOOL FOR VARIOUS ENDOMETRIAL PATHOLOGIES IN INFERTILITY: A COMPARATIVE STUDY



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## **ABSTRACT**

Aims and Objective: To evaluate the role of saline infusion sonography (SIS) in evaluating & diagnosing various uterine (endometrial) pathologies in infertile women and its comparison with hysteroscopy & histopathology.

**Methods:** The study was conducted in Department of Radiodiagnosis & Department of Obstetrics & Gynaecology in N.S.C.B. Medical College, Jabalpur from 1st July 2009 to 31st May 2010. A total number of 50 infertile female patients were selected from the Gynaecology OPD whowere subjected to underwent the saline infusion sonography (SIS) and then hysteroscopy examination and histopathological examination. Data were analysed and results of saline infusion sonography (SIS) was compared with hysteroscopy and histopathological examination of specimen.

**Results:** Total of 50 patients were registered who meet inclusion criteria. The most common presenting symptom was menorrhagia in 24 (48%) followed by lower abdominal pain in 14 (28%). Out of the total 50 patients who underwent SIS, 19(38%) patients had endometrial hyperplasia, 11(22%) - endometrial polyp, 8(16%) - submucous fibroid, 4(8%) -irregular thick bands, 8(16%) -normal endometrium. Out of 50 patients who underwent SIS were followed by hysteroscopy and histopathological examination. On hysteroscopy and histopathological examination. On hysteroscopy and histopathological examination 19(38%) patient had endometrial hyperplasia, 11(22%) - endometrial polyp, 8(16%) - submucous fibroid, 3(6%) - hyperplasia and polyp both, 4(8%) - intrauterine adhesions(Asherman's syndrome) and normal endometrium in 5(10%)patients. When all findings are combined the specificity, sensitivity, Positive Predictive Value and NPV of SIS are 92.3 %, 87.2 %, 93.2% and 90.2 % respectively.

**Conclusions:** Saline infusions sonography (SIS) is very simple, non-invasive, well tolerated procedure to diagnose various uterine (endometrial) pathologies in infertile females. The findings of SIS, hysteroscopy and histopathology did not differ significantly. Therefore SIS can be used to diagnose uterine (endometrial) pathologies in infertility cases with reasonable accuracy.

**Keywords**- Saline infusions sonography-SIS, Endometrial pathologies, Infertility, Hysteroscopy

Access this Article Online

Website: http://www.journalofhospitalpharmacy.in

Received on 19/04/2018

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