MATERIAL AND METHODS
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The present study was carried out in the Department of Obstetrics and Gynaecology and Department of Radiology, M.L.B. Medical College, Hospital, Jhansi over a period of one year.

SELECTION OF CASES

The cases were selected from the patients reporting in the out patients department of Department of Obstetrics and Gynaecology and were diagnosed as cases of sterility, either primary or secondary.

A detailed history regarding the age of patient, presenting complaints, duration of married life and stay with husband, menstrual history, obstetrical history, past illness and family history was taken.

In cases of primary infertility details of menstrual history were noted in view of any organic cause of the uterine or ovarian origin leading to infertility. The husband was also investigated for any abnormal findings in the semenogram.

In patients of secondary infertility details of the previous pregnancies were recorded with special emphasis on the outcome of last pregnancy and the puerperal period.

These patients were then subjected to thorough clinical examination.
The patients in whom clinical examination and history and husband's semenogram revealed no positive findings were then subjected to the test for assessment of tubal functions. These tests include hysterosalpingography in the pre-ovulatory period i.e. between 6th-10th day of the menstrual cycle and simultaneously followed by 'sonosalpingography' or assessment of tubal patency by ultrasonography.

The results of the two procedures were compared with special reference to patient compliance and problems encountered during each procedure.

**Material Used**

1. X-ray films 8x10" size
2. Contrast media (Conray-200)
4. Normal saline
5. X-ray machine, developer and fixer solution
6. A real time ultrasound scan
METHOD

For the assessment of tubal functions the patient was subjected to hysterosalpingography and sonosalpingography in the pre-ovulatory period i.e. from 6th - 10th day of the menstrual cycle.

A pre-medication was given with an antispasmodic (Buscopan or Avaftan) 15-20 minutes prior to the procedure. In patients who were too apprehensive to undergo the procedure a sedative like Diazepam was given. The patient was asked to evacuate the bladder and was made to lie on the examination table in the lithotomy position. A bimanual examination was again done to assess the size and position of uterus and the condition of adnexa. Sim's speculum was introduced and anterior vaginal wall retracted with an anterior vaginal wall retractor to visualize the cervix. Velamentum was then used to catch hold of anterior lip of cervix and a uterine sound passed to know the length and direction of uterus. If the cervical canal was found to be stenosed, cervical dilators (Hegar's type) were used to dilate the cervix. Then the screw type Leach Wilkinson cannula was introduced into the cervix. Care was taken that the knob of the cannula fitted against the external os tightly so as to prevent any leakage of the dye. A 20 or sterile syringes was loaded with 10-12 ml dye (Conray-350) and attached
to the canula after removing the stellate of the canula.

It was assured that there was no leakage of the dye. Now
the speculum and the anterior vaginal wall retractor were
removed carefully taking care not to displace the velosallum
and the canula. Patient's knees were extended and radiogra-
phic films were taken.

(1) Immediately after injection of dye.
(2) After 5-7 minutes of the injection of dye.

Whole of the procedure was carried out under
aseptic conditions.

One day after the hysterosalpingography, the
patient was called for sonosalpingography with full bladder.
A pre-scan was done to assess the condition of uterus, adnexa
and pelvic organs and to rule out presence of fluid in pouch
of Douglas. The patient was put in lithotomy position, cervix
visualised and caught by velosallum (anterior lip) and Foley's
catheter introduced. It was inflated by 2-3 cc of normal
saline. Speculum and velosallum were removed. Now 50 ml of
normal saline was injected through this catheter into the
uterine cavity and half an hour later another USS scan was
done to see for distension of uterine cavity or presence
absence of free fluid in pouch of Douglas.
Whole of this procedure too was carried out under aseptic conditions.

The sonography was performed with a real time sector sonographic scan.

When the two procedures were being carried, patients were noted in relation to the amount of discomfort felt during the two procedures and any untoward findings during the procedures. Later on the results were compared.