MATERIAL AND METHODS
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The present study was conducted on 55 (women in the department of Obstetrics and Gynaecology, M.L.B. Medical College, Jhansi over a period of one year.

SELECTION OF CASES

For the purpose of this study patients were selected from the out patient department and the indoor patients of the wards and were grouped into the following categories:

A. Women in different phases of menstrual cycle:
   (a) Pre menstrual
   (b) Mid cycle
   (c) Post menstrual

B. Women in three trimesters of pregnancy.

C. Women suffering from pathological conditions of the cervix:
   (a) Chronic cervicitis -
      i) Endocervicitis
      ii) Cervical erosion
   (b) Cervical dysplasia

Clinical history of patients regarding their age, socio-economic status, their menstrual history, obstetrical history, dietary history was taken and their general examination was done.
In the pregnant patients the fundal height was assessed and the period of gestation was determined by:

(a) P/V examination was done in the patients of 1st trimester pregnancy to assess the size of the uterus and for the confirmation of pregnancy.

(b) P/A examination was done in the 2nd and 3rd trimesters of pregnancy.

(c) P/S examination was done in patients selected as cases of having a cervical pathology on the basis of their history of low backache, vaginal discharge and general ill health.

**COLLECTION OF CERVICAL MUCUS**

The patients were laid down in the dorsal position and after clearing the vagina with an anticeptic solution, a posterior vaginal wall speenlum was applied the anterior lip of the non-pregnant cervix was held by a volsellum and that of the pregnant cervix with a sponge holding forcep. Next 0.5 mg of cervical mucus was collected with the help of a tuberculin syringe. Samples contaminate with blood were rejected. The collected samples were mixed with a known volume of normal saline depending upon the consistency of cervical mucus and stores at -20°C.
EXAMINATION OF IMMUNOGLOBULINS IN CERVICAL MUCUS

(IgA and IgG)

For quantitative estimation of serum immunoglobulins, the Single Radial immunodiffusion technique as described by Mancini et al (1965) was used.

**Principle**

The principle of this technique is that an antigen diffuses radially from the point of application into an antibody containing gel and a circular precipitin ring forms at the zone of equivalence keeping antibody concentration and gel thickness constant, the area covered by the precipitin ring is proportional to the concentration of the antigen.

IgA and IgG levels in cervical mucus were measured by the above technique using commercially available immunodiffusion plates.

Reference serum provided by the manufacturer having known quantities of IgG/IgA was fixed in three wells in the concentration of 100%, 50% and 25%.

Each well was filled with 5 microlitres of test material, after filling the wells, the plates were kept aside for 10 minutes to dry and then incubated at room temperature in humid atmosphere for 24 hours. Diameter of each precipitin ring was measured after 24 hours of
incubation to the nearest 0.1 mm. Diameter square of the reference was used to plot a standard graph.

Against this standard graph, value of unknown samples corresponding to their diameter squares were read. These readings were taken as levels of IgG/IgA in cervical mucus samples after correction of dilution factor (1:1).