PHOTOGRAPHS
Photomicrograph of Vaginal Cytology showing Intermediate, Superficial cells, and Mild grade of Dysplasia. 
(Pap, staining X 200 \( \times 200 \)).
Photomicrograph of Vaginal Cytology showing Intermediate superficial cells and Moderate Grade of Dysplasia.

(Pap., Staining X 200 (Pap.))
Photomicrograph of Vaginal Cytology showing Intermediate, Superficial Cells and Trichomonal Vaginosis.
(Pap stain X 700 (G11 Reagent)
DISCUSSION
DISCUSSION

There is no doubt that no single method can be utilized for birth control of the population in our country because different areas have different socio-economic conditions, educational standards, customs and thinking and different means of treatment.

Experiences over the last two decades have shown a great deal of variation in the results of clinical trials and cytological findings of oral contraceptives and other contraceptives (Hines and Goldmeier, 1969). The reasons for such variations are complex. In part they may result from differences in the ethnic group or socio-economic characteristics of the population studied from differences in the study designs or from differences in the approach to data analysis.

Variations in the performance of the same IUCDs in different countries and different clinics can be expected, since various factors are responsible e.g.

(i) **Patient Population**

Differences of means, age, parity, gravidity and last gestation.

(ii) **Physicians experience**

Physicians with less experience and skill in IUCD insertion are more likely to have a lower incidence of correct high fundal positioning with resultant higher risk of expulsion and pregnancy.

(iii) **Side effects and Tolerance**

Vary among different users.

(iv) **Clinical attitude**

The rate of removals for bleeding and pain may be influenced by the attitudes of the physicians and other members of the staff.
Additional contraceptives

Availability of other methods.

In the present study the results of the 3 types of temporary contraceptives, namely:

- Copper 'T'
- Lippes Loop
- Oral contraceptives and Condom

have been computed.

AGE:

Most of the women using the above mentioned contraceptives were between the age range of 20 years to 34 years. The youngest was of 20 years and the oldest was above 40 years of age.

Majority of the women using the different contraceptives were in reproductive age group mainly (20-39). Mostly the women were Copper 'T' users. Majority of the women using different contraceptives were within the age group of 21-30 years, although a good percentage of women upto the age of 40 years seemed to be using the Lippes Loop. Women of higher age group were mostly using Condom.

These findings were found to be in accordance with the study of Affandi and Vinker, 1976. They studied 200 women using Copper IUCD. The youngest woman in their study group was of 16 years and the oldest woman was 47 years of age. Similar findings were reported by R.K.Roy Choudhary, et al, 1980.

PART 3

Distribution of women using different contraceptives in relation to parity is shown in Table IV.

Mothers of 1-4 children were seen to use these contraceptives to the maximum.
Among Copper 'T' users there were 2 nulliparous women using the device while no other mean of contraception was opted for by the nulliparous women in the present study. It was also observed that women having more than 4 children used the device as a mean of family limitation rather than for spacing.

All the nulliparous women, studied in this work were using the Copper 'T' as a contraceptive device. Women with one or 2 children were mostly using the oral contraceptives and with a parity of 1 to 2 children the women were using copper 'T' and Lippes loop. But as the parity advanced beyond 3 i.e., women having 3 or more children preferred to use condoms as a contraceptive mean.

In the study of Affandi and Visakar 1976, in the 200 women using Copper IUCD, there was no nulliparous women in the series. 26 women had one child and the rest were nulliparous.

Boy Chowdhury and coworkers 1988 reported that with respect to the Parity it appears that mothers of 1 to 4 children were maximum users of modern contraceptive means.

So, the distribution of women, according to age and parity were comparable in all the four groups of women using different contraceptive methods.

**CLINICAL SIDE-EFFECTS**

**Menorrhagia**

Maximum number (46.71%) of Copper 'T' users complained of Menorrhagia i.e., these patients complained of excessive amount of bleeding with a prolonged duration of bleeding. 25% of loop users complained of Menorrhagia and only 16% women had this complaint while they were using oral contraceptives. No woman with an opposite condom user partner complained of Menorrhagia though they suffered from pelvic infection and Cervical erosion.
So, Menorrhagia was seen maximum (46.71%) in the Copper 'T' users. This finding was similar to the studies done by Hanaquist, et al (1974) and Guillebaud, et al (1976). They reported a prolonged duration of flow in women using IUCDs.

Zador, et al (1976) and Wan and Colleagues, (1977), also reported, that in comparison to Lippes Loop, the duration of flow is slightly more in Cu-IUCD users. The duration was prolonged from 0.5 to 1.5 days for Cu-IUCD users.

According to Daniel Michell (1979) about 50-60 ml. of blood is lost per cycle in Cu-IUCD users.

16% of oral contraceptive users complained of Menorrhagia. This was very unlike the study of Hefnawi, et al (1975) and Hefnawi and co-workers, (1977) who suggested a reduction in the mean blood levels of oral steriods.

Sanchez and Novarro (1968) noted that in 130 women on oral steriods, uterine bleeding remained normal in 27, was decreased in amount or duration in 47, was increased in 22 and was very irregular in 24.

**Weight Gain**

Only 16% of oral contraceptive users complained of weight gain.

Hanscher, et al (1968), Rubio and Gonsalez (1970) also showed weight gain in their studies by use of oral contraceptives. Michell and associates (1969) and Zartman (1970) have reported the same. Same was observed by Spellacy and colleagues (1970, 1972) and Cladosa Leisen (1972).

No change in weight was observed among women using any other contraceptives i.e., in Copper 'T' users and women with an opposite condom partner.

**Fallopian Masse**

5.86% women, the were Copper 'T' users showed the presence of Pelvic mass on per vagium examination. No case
was observed in oral contraceptives users.

Studies by Lippes (1963) and Tietze (1965) showed pelvic infection rates in IUCD users ranging from 0.6 to 3.5% per year.

The findings of the present study were in accordance with the work of Wright and Leavale (1966), who found a five-fold increase in the acute salpingitis rate in IUCD users versus oral contraceptive users. Eschenbach, et al, in 1977, reported that the risk of acute salpingitis was 4.4 times higher in IUCD users than the non-users. So according to Eschenbach, et al (1977), both barrier methods (like condom) and oral contraceptives reduce the risk of developing acute salpingitis. This was observed in the study, as there was no case of salpingitis present in women with an opposite condom user partner and in users of oral contraceptives.

This tail of IUCD had been suggested as another explanation of the increased incidence of infection in IUCD users, as it was found more in IUCD users.

Vanderve (1970) observed inflammatory rate higher in the first two months immediately after the insertion of IUCD than later. In our series also the maximum cases were seen in the first six months of use.

Failure Rate

(Due to pregnancy)

Maximum percentage (13.33%) of failure rate was observed in women with an opposite condom user partner and 6% of failure rate was seen in oral contraceptive users. 6% of failure rate existed in women using loop. Least failure (2.5%) percentage was observed among Copper 'T' users.

Improper insertion and displacement of an IUCD has been shown in to result more often in perforation, expulsion, miscarriage (for pain and bleedings) and pregnancy by Tietze, (1975), Hasson, et al (1976) and Perinute, (1978).

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In contrast to reports by several workers (Shive and Thompson 1974, Parmiter, 1978) immediate post abortion insertion of a device or insertion up to 8 weeks post-partum is associated with increased pregnancy rate, the present study did not show a high pregnancy rate after IUCD insertions.

The possible reason for failure can be technical problems, regarding uniformity of the release rate of copper and restricted life span of the device.

**Failures on account of removal of the device or discontinuation of use**

11% of the removals were observed among the Copper 'T' users and 2% among the Loop users. 5% of women discontinued using the pills.

The removal of the device was attributed mainly to the bleeding and pain.

Tebough (1972) had given an average of 10% of pelvic pain with the small Cu-IUCDs.

Tatum, et al (1973, 1975) and van Ge (1978) gave results that increased pain, bleeding and removal rates were directly proportional to the size, shape, consistency and volume of the IUCD.

Only 2% of discontinuation rates were observed among the users of oral contraceptives. Inspite of having the highest theoretical effectiveness of the reversible methods of contraception, oral contraceptives have same failure rates as seen in some barrier methods.

Discontinuation rates as high as 50-60% were seen in some family planning clinics as reported by Hatcher, et al (1988).

Discontinuation of the therapy was due to menstrual irregularities or forgetting to take the pill at the same time everyday.
Exclusions

3.28% of women using the Copper 'T' expelled the device spontaneously.

Kamal, et al. (1973), explained that disoriented or displaced device and a dimensional disproportion can cause uterine irritation which provoked asymmetrical contractions causing the expulsion.

Even in well selected cases the shape of the uterine cavity was constantly under going change.

Hann, (1963) reported that during menorrhagia fundal hypertonia co-exists with isthmic hypotonia to create conditions in which the transverse diameter of the fundus was reduced while that of the isthmus tonicity was reversed in the postmenstrual phase of the menstrual cycle. Hence, it was difficult to achieve exact fitting and this lead to expulsion, (Hannon et al, 1970). In postnatal cases, expulsion was more due to a patulous os and changes in dimensions of uterine cavity.

Perforations

2% (the rate is high, because of the less number of cases in the present series) of perforation of uterus was seen among patients using the Lippes loop and only 2.63% of perforation were seen with the Copper 'T' users.

According to Miskell (1979), the perforation rates for the Copper 'T' and loop in a large multi-clinical studies are almost in the same range of those for the Loop 1:1000 insertions.

Tatum (1976), identified 4 variables that influence the risk of fundal perforations.

(1) size, shape and consistency of the device,
(2) Status and configuration of the device,
(3) Insertion techniques, and
(4) The skill and experience of the operator.
Lippes (1979) observed "Intrauterine contraceptive device do not perforate, for this to happen we need a practitioner." Most of the fundal perforations occur or being at the time of insertion.

Cervical perforations result from downward displacement of the device, this could occur with any device with a vertical arm such as the 'T' or '7' devices. Mishell (1979) reported it to range between 1:600 to 1:1000 insertions.

No such complaint existed in women on oral contraceptives and women having an opposite condom partner.

Giddiness

16% of women experienced giddiness while using the oral contraceptives. This symptom was never present in the copper 'T' or loop users or women with an opposite condom user partner.

Chinnatamby (1971), also noticed giddiness in her patients using oral contraceptives.

Summarizing and comparing the events at the end of the study period of one year, Copper 'T' showed best results followed by oral contraceptives and Lippes Loop (Table IV).

However, the difference is not statistically significant due to relatively small number of patients in each group.
Study of Vaginal Cytological Changes.

Vaginal cytological smear of the women using different contraceptives revealed the following changes namely:-

Dysplasia of mild and moderate grade, inflammation and trichomonal infection.

Dysplasia - There were only 2 cases (5.0%) of mild dysplasia in the control group. No case of moderate or severe dysplasia was observed in the control group.

Dysplasia in IUCD Users:

In Copper 'T' Users:

A total of 21.0% of mild dysplastic changes were seen in the Copper 'T' users.

In 7.6% cases of Copper 'T' users mild dysplasia was observed at the age range of 20-34 years. 9.20% of mild dysplastic changes were seen at the age range below, 20 years to 29 years. 3.34% of mild dysplasia was seen at the age range of 35-40 years and above.

Only 2 cases of moderate dysplasia were seen in the Copper 'T' users. Only one was at the age range of 25-30 years and one at 30-35 years. There was no case of severe Dysplasia throughout the study.

7.68% of mild dysplasia was seen after 1-2 years of the use of Copper 'T'. 1.97% of dysplastic changes were present in the preinsectional smear. 8.55% of mild dysplasia was seen after 1 month to 1 year of use. 1.34% of mild dysplasia was observed after 2-3 years and 1.80% of mild dysplasia was seen after 4-6 years of use. Only 2 women showed moderate dysplasia after 1-2 years and 3.4 years of use.

In Loop Users:

Approximately equal to Copper 'T' Users i.e. 20% of mild dysplastic changes were seen in the Loop users. Dysplastic changes were not observed in the initial smear. There was no case of moderate or severe dysplasia although the study period.
The mild dysplasia was seen in women above 40 years. 5% of mild dysplasia was observed after 2-3 years and 10-11 years, 10% of mild dysplasia was present after 5 years above.

Ishihara and Kagaku (1964) in combined histocytological study, Ayre (1965) in cytological study had reported only a few instances of dysplasia in women using different intra uterine devices for varying periods.

After 3 months the women using Copper 'T' reported for follow up after treatment. A regression was observed in the dysplastic rate. Only 16.44% of mild dysplasia was seen in Cu 'T' users and only 1 case of moderate dysplasia was present. At the 3rd visit, i.e., at 9 months duration after further treatment, a further regression was observed. No case showed moderate or severe dysplastic changes and only 10.5% of women were left with mild degree of dysplasia. Out of the cases who were not given any treatment among the Copper 'T' users, showed a regression to negative smear and 1 showed only inflammatory changes while the remaining 3 cases did not show any change from mild dysplasia. This proved that the copper provided a protective covering against development of dysplastic changes.

The Loop users also showed a regression of dysplastic changes after treatment. At the 3rd visits, at 9 months of duration, only 1 patient showed mild dysplastic changes and there was no case left with moderate or severe dysplasia. 1 case of loop users was not given any treatment. She showed a progression to moderate dysplasia in her follow up smear.

In the present work, it was observed, that those cases, who had inflammation in the initial smear (i.e., preinsertional smear) showed dysplastic smears at the 6 monthly examination. The inflammation was treated and the subsequent smears were normal i.e., Dysplastic changes were seen more from 6 months to 1-1/2 years of duration.

Most of the dysplastic smears were having accompanying infection, so patients having inflammation were promptly
treated with local and oral antibiotic therapy intra vaginal tablets of HPP were also prescribed. There was a resultant regression of dysplasia after treatment, but without treatment there was progression of dysplasia in loop users.

Cytological studies of Schwartz et al. (1967), Sagiroglu and colleagues (1970) had reported incidence of dysplasia almost equal to control group. Most of the dysplasia showed a regression to normal at their follow-up 6-12 months later. This was evident in the present study also.

Tietze (1966) had observed cytological smears of women at insertion of IUCD and after 6 months of use and has reported transition from negative to dysplasia in 1% of cases and appearance of carcinoma in situ in 4% of the 4600 women examined. He also reported regression of these dysplastic changes.

Wahi et al. (1968) reported that lesser time is required for progression from mild to moderate dysplasia in IUCD cases as compared to control group. This was also observed in the present work.

The findings of the present work were in accordance to the findings of Affendi and Viskar (1978) a who followed 200 women by cytological smear examination using copper device for contraception. The study was conducted for a period of 4 years. They reported 3 smears of mild and 3 smears of moderate dysplasia. These cases with dysplasia showed a regression to normal in the follow-up smears in a period of one to 2 years after treatment.

Other workers also reported similar findings.

Nisar et al. (1977) carried out comparative cytological studies in 110 women using Lippes Loop and 90 women with Cu-IUCD for a period ranging from 3 to 5 years. No case of severe dysplasia or malignancy was found in either group on follow up. The incidence of dysplasia was slightly lower in Copper 'T' users than in Loop users. This suggested that the Copper coating on the device somehow affects protection from occurrence of dysplasia. This supposition gained strength from
the fact that all 6 initial dysplasias, 3 pre-insertional and 3 noted at first smear, regressed to normal within 6 to 12 months of copper contraception. Similarly 6 of the 11 dysplasias detected in follow up smears during 6 months to 3 years use of the device, regressed to normal on follow up 6 to 12 months later.

Luthra, et al (1980) had reported, their experience with the use of copper devices for 48 months, 30 women had dysplasias in the smears initially before insertion and equal number developed dysplasia during the follow up. The regression rate was almost 60% to 75% with all cases of dysplasias, by the end of 48 months.

Similar results were obtained in the following study of Alikat and colleagues (1980). They reported the results of long term effect of copper intrauterine contraceptive devices on cervical epithelium, and endometrium 633 women using copper IUCDs were studied. There was mild dysplasia in 3 and moderate in 2 prior to insertion. However, same regressed within 6 months of follow up. Dysplasia (all mild) which occurred during follow up regressed within 6-12 months.

In the study of Roy Choudhary and coworkers (1980), 4 cases of mild and 1 case of moderate dysplasia was present in 120 loop users and 3 cases of mild and 3 cases of moderate dysplasia was observed out of 120 copper "T" users. Duration of use in these cases was 24 months, there was no case of severe dysplasia even in users of longer duration. 2 women developed during the study period, Dysplasia regressed by the treatment, in all cases.

Dysplasia in Oral contraceptive users:

12.6% of cases using oral contraceptives showed mild dysplastic changes in the study group. There was no case of moderate or severe dysplasia seen through out the study.

4% of mild dysplastic changes were observed in the cytological specimen of women using oral contraceptives at the age range of 25-29 years and 30-34 years. 2% of
dysplasia was present at the age range of 20-24 years and
35-39 years.

4.0% of mild dysplasia was seen after 7-12 month
of use. 2% of mild dysplasia was present in pre-inserterional
smears and 2% of mild dysplasia was observed after 1-6 months
2-3 years and 3-4 years.

A gradual regression of dysplasia was observed
in the follow up of vaginal cytology, in 6 women after
treatment. In the 2nd visit i.e. after 3 months duration an
increase in dysplastic changes to 12.0% were noted. A further
treatment was given and a regression in dysplasia was
observed to 6.0% at the 3rd visit, at 9 months duration. 2
women were not given a ny treatment. The vaginal cytology of
1 woman remained same but that of the other showed progression
to moderate dysplasia. The present study had finding similar
to the findings of following works:

Attwood (1968) stated that among 500 medicated
women there was a 22% incidence of dysplasia whereas among
9000 controls there were only a 0.6% of incidence of dysplasia.

Liu et al (1967) noted 1% incidence of abnormal
smears from 1000 women treated with hormones for contraception.

Melamed and coworkers (1969) also revealed an
increase in the prevalence of severe dysplasia in sterilized users.

Kline et al (1978) in their study on 2336 women on
contraceptive therapy, found atypical cells in smears in
contrast to 17,736 women (control) in whom the incidence was 1%.

In this study by Walisch and colleagues (1970), on
305 patients on oral contraceptives they noticed cervical
dysplasia in 11 patients and dysplasia with focal carcinoma in
situ in one patient.

These changes and results were similar to those
found in the general population of Agn. Wahi et al (1972)
in their study at Agn studied a total of 26,110 smears out
of which 1,641 showed various degree of dysplasia. The incidence of dysplasia being 6.29% Ketwani (unpublished study) reports a decreased incidence of 2.1% in 11,642 women.

M.M. and coworkers observed in Agra in 275 oral contraceptives dysplastic lesions of varying degrees were present in 17% women and only 6.9% of controls had dysplastic lesions. These women were on oral pills for a long time. No case revealed severe dysplasia or malignancy. There was a regression in the incidence of dysplasia by treatment.

Dysplasia in women with an opposite condom partner.

Dysplastic lesions were seen only in 2 cases out of 30 at the age range of 35-39 years. Subsequently no dysplasia was observed after treatment. There was no case of moderate or severe dysplasia.

Exactly similar findings were seen in the vaginal cytology of patients by C.S. Roy Chowdhury (1980). No case revealed moderate or severe dysplasia. 2 cases showed mild dysplastic lesions. This dysplasia also regressed to normal.

So in all the contraceptive methods adopted, increased tendency to dysplasia was found in study group than controls. Approximately equal number (21.05%) and (20%) of mild dysplasia was observed in Cu and loop users. 12% of dysplastic changes in oral contraceptive users and 3.33% of mild dysplasia was observed in women with an opposite condom user partner.

These dysplastic changes were measurable after prompt and proper treatment. These changes were also measurable after discontinuation or removal of the device. In copper "T" users these dysplastic changes regressed even if the device was left in situ and no treatment was given, as copper provided a protective coating.

INFLAMMATORY AND TRICHOMONAL INFECTION:

Patients showed marked inflammatory changes in the vaginal cytological smear. This inflammation accompanied the dysplasia in most of the cases. Infection with Trichomonas
vaginalis was also present in the vaginal area. Proper intra-vaginal ITP Tablet was given to the patients. Local antibiotics and oral antibiotics were also prescribed. Due to the presence of inflammation, prompt treatment was advocated to the patients. There was a reduction in the incidence of inflammation and infection due to treatment. The dysplasia was present due to this associated infection. As a result of reduction in the infection, dysplasia also regressed by treatment.

In the present work, 61.5% cases of inflammation was seen in Copper ‘T’ users, 40% of women showed inflammatory changes in loop users, women with the condom user partner and also in the control group. In the women using oral contraceptives, only 10.9% of cases showed inflammation. There was a gradual reduction in the incidence of inflammation (old and developed) in all groups including the control group after treatment. At the 3rd visit, at 9 months duration 25.4% of cases of Copper ‘T’ showed inflammation 16.6% of cases showed inflammatory changes in the women with opposite condom user partner, only 4.1% cases were left having inflammatory changes among users of oral contraceptives. 10.8% of inflammatory cases were seen in loop users and the control cases. These changes were seen in patients of all groups who were given treatment.

12 women having inflammation among the Copper ‘T’ users were not given any treatment, 4 cases showed a negative cytology whereas 2 showed the same inflammatory area in the follow-up smear. 2 cases with inflammatory changes among loop users were not given any treatment. 1 case showed the same cytological findings upon follow-up while the other showed evidence of dysplasia. 1 case among the oral contraceptive having inflammation did not take any treatment. She showed progression to dysplasia. 3 women with an opposite condom user partner were not subjected to any therapy, 2 women showed some inflammatory changes while 1 woman showed
evidence of dysplasia in her cytology. 4 cases of the control group who were not given any treatment, 2 showed mild inflammation and 2 showed dysplastic changes in the cytology. Thus there was a progression to dysplasia without proper treatment.

Trichomonal infection was also seen in women using different types of contraceptives. Maximum percentage (60%) of Trichomonal infection was present in women with opposite condom user partner. This regressed to 36.66% after treatment in the follow-up months.

15.78% of cases of the Copper 'T' users showed Trichomonal in their vaginal smears which reduced to 5.26% cases in the 3rd visit at 9 months duration. No such incidence was present in loop users. Only 4% cases showed evidence of Trichomonas in the vaginal smears among women using oral contraceptives, by treatment the smears obtained after treatment were free of the Trichomonas.

15% of Trichomonal vaginitis were present in the control group they also showed a regression after treatment to 5%.

Many workers also reported a reduction in the incidence of inflammation. So the findings of the present study were found to be in coincidence with the work of various workers.

Affandi and Viskar (1976) have reported that there was a reduction in the incidence of inflammation in their study on 200 women using IUCD. They also explained that the problem of infection can be avoided to a great extent by careful screening of the new patients and eliminating or treating those with existing infection before insertion of the device. There were 3 smears of moderate dysplasia with accompanying inflammation. This was curable after treatment.

Nisar et al (1977) conducted a study on 461 women using various types of cu-IUCDs. A six month follow up of 296 women with initially normal smear had revealed high
incidence of inflammation. This inflammation showed reduction by treatment. A consistent release of copper from the device has been reported in the uterine milieu as well as in cervical mucus by Hagenfeldt (1972), it seems that copper released in the mucus (which was quantitatively analysed by Hagenfeldt as 50% of the total amount of the metal released) somehow leads to the causation of inflammatory changes in the cervical epithelium.

Roy Choudhury, et al (1980) conducted a study of vaginal cytological changes following use of different methods of contraception. They reported 9 cases of inflammation in 120 loop users, and 3 cases of inflammation in Copper 'T' users. The changes were evidenced within 7-12 months of use. 8 cases of women with opposite condom user partner showed inflammatory changes. Inflammatory changes in oral contraceptive users appeared after a long time of the use of the pills. Only 6 cases were seen having inflammation among 94 women, but in all cases there was a reduction in the incidence by treatment.

There was no evidence of carcinoma in any of the vaginal smears of women using different methods of contraception.

Study of Endometrium

Endometrial biopsy was done in women using different contraceptives at the 3rd visit at 9 months duration. This was done to see the effect of different contraceptives on the endometrium.

Endometrial biopsy was done in 100 women among the Copper 'T' users. 66% cases showed a normal pattern, 9% cases showed atrophic endometrium. Only 2% cases showed chronic endometritis, 2 cases had an inadequate endometrium so opinion was possible in these cases.

In loop users, endometrial biopsy could only be done in 6 cases. 4 cases showed a normal endometrial histological pattern and 1 case showed atrophic endometra and the other had an inadequate endometrium.

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In 36 women using oral contraceptives, endometrial biopsy was performed. 66.11% showed a normal endometrial pattern, 11.11% revealed cystic hyperplasia and chronic endometritis, 5.55% cases had stromal oedema and in 11.11% cases the endometrium was inadequate making the opinion impossible.

In 14 women with an opposite condom user partner, endometrial biopsy was done. All cases, except 2 with inadequate endometrium showed a normal histological pattern according to phase of the cycle.

In 12 cases of control, 8 showed a normal, proliferative and secretory phase, 2 had stromal oedema and 3 cases had an inadequate endometrium. There was no case of cervical or endometrial carcinoma through out the study.

With regard to the effect of IUCD on vagina, cervix and uterus so far there is no suggestion that incidence of cervical carcinoma is increased in women using such devices. The studies do, however, demonstrate the presence of abnormal cervical smear, although no statistically controlled studies on sizeable population have been done so as to compare the incidence of cervical dysplasia in general population as compared to that of IUCD using population. Moreover, the biological behaviour of cervical styplas in these two groups of population has also not been studies long enough to provide a reliable data.

The findings of the present work are practically similar to the observations of following workers.

Cervical neoplasia may develop at varying periods in women using Lippes loop as described by Maroulian (1964), Pietze (1965) and Richman et al (1968).

In 1966 World Health Organisation (WHO) scientific group reported that histological studies on uterus of many hundreds of women, using intrauterine devices, had failed to reveal any changes related to neoplasia.
Richart and Barrow (1967), analyzed the progress of cervical dysplasia to carcinoma in situ in women having intrauterine devices and failed to find a significant difference from the control group.

Cytological studies of Schwartz et al. (1967), Sagiroglu and coworkers (1970) had also failed to detect any evidence of precancerous or malignant changes in the cervical epithelium of women, retaining an intrauterine device for as long as 6 years.

Ishihara et al (1970) again in a cytological study in women using intrauterine devices reported suspicious smear in 68 (6.4%), out of 1058 women. But they had not reported any malignant changes in final histopathological diagnosis among 68 women.

Retrospective and Prospective studies had failed to suggest any carcinogenic action of copper upon the generative tract. Yatun (1973) studied serial Papanicolaou smears of the cervical epithelium. These he found to be normal over a period of use of copper ‘T’ for as long as 5 years.

In 1974, Yatun reported that repetitive endometrial biopsies from women who had worn a copper bearing ‘T’ for 5 years showed no greater incidence of endometrial hyperplasia or malignancy.

In 1977, Nigh and Cowhern in a cytological study in women, using copper intrauterine devices even for 4 years does not predispose to carcinogenesis in the cervix.

Ayaz, et al. (1966) studied 702 women during or after cyclic continuous oral contraceptive therapy. They concluded that there was no indication of carcinogenic influence even in pre-existing premalignant dysplasia of carcinoma in situ of the cervix.

Waid, et al. (1966) found no significant atypical changes in the examination of female genital tract smear from 1,632 patients taking contraceptive hormones.
Schecter (1968) in order to classify the possible
carcinogenic effects of ovulation inhibitors carried out cytologic
and colposcopic examination on 1,031 women who had taken
ovulation inhibitors during 9,771 cycles. The histologically
proven cervical carcinomas and epithelial atypias were found
in routine examination of healthy women in the mass screening
programme conducted by Nishima et al (1956) who found 0.7%
invasive and carcinoma in situ in women of all age groups.

Choudhary and coworkers (1969) also reported that
although the original purpose of condom was to protect the
user against venereal disease, if it is used together with
medication contraceptives like spermicidal jelly, some non-
specific infection may result. In their study out of 44 cases
of condom users there was cytological evidence of inflammation
in 9 cases. All were non-specific in character. But there
was not a single case where dysplastic changes or malignant
changes were observed in vaginal cytology except 2 cases
of mild dysplasia.

So it is evident from the present work that there
is no precipitous carcinogenicity of modern contraceptives
not even in the recently used oral pills or medicated. Rather,
there is possibility of a prophylactic effect of these contra-
ceptive controlling malignancy by restricting family.