National Journal of Medical and Allied Sciences

[ISSN Online: 2319 6335, Print: 2393 9192|Original article |Open Access]

Website:-www.njmsonline.org

CERVICAL DYSPLASIA IN PATIENTS OF PID: A STUDY FROM ALIGARH, UTTAR PRADESH

Uzma Eram[1], Najam Khalique[2],Mohammad Salman Shah[3], Anees Ahmad[4]

Department of Community Medicine, J.N.M.C.H, AMU, UP, India

Abstract

Background: Pelvic Inflammatory disease (PID) is a serious syndrome of female reproductive system which results from the spread of infections from the vagina and endocervix to the uterus, fallopian tubes and ovaries. It is more common in developing countries because of unhygienic conditions. **Material & Methods:** The present study was carried out among ever-married females in the reproductive age group of 15 to 49 years. All the above mentioned females attending the gynecological OPDs in the JNMCH, UHTC and RHTC were screened by a verbal questionnaire. **Results:** Out of 350 married females, who were investigated for PAP smear, 210 females (60.0%) were found to have non-specific infection. Prevalence rate of the cervical dysplasia was slightly higher in the rural women. The association of dysplasia was more in low socio-economic classes (III-V) in comparison to upper socio-economic classes (I-II). **Conclusion:** There is a large proportion of females who suffered from non specific infection. Creating awareness among rural folk regarding hazards of cervical cancer and role of early detection of the disease in essential up.

Key words: Cervical Dysplasia, PID, PAP smear

Author for correspondence: Dr. Salman Shah, Assistant Professor, Department of Community Medicine, J.N.M.C.H , AMU, UP, India E mail

Introduction:

Pelvic Inflammatory disease (PID) is a serious syndrome of female reproductive system which results from the spread of infections (most often sexually transmitted infections) from the vagina and endocervix to the uterus, fallopian tubes and ovaries. Infections of the lower reproductive tract are common in Indian women.[1] It is more commonin developing countries because of unhygienic conditions than that in the developed countries. In hospital clinics, repeated infections of the genital tract have been observed in women attending, with serious sequelae. Persistent infections can lead to chronic inflammation and dysplastic changes. In the developing world including India, cancer of the uterine cervix is the most frequent cancer in women.[2] In India, as in

other developing countries, many deliveries are conducted at home by dais. Criminal abortions continue to take place despite Government of India s liberal policy on induced abortions. Post abortal and puerperal sepsis is therefore, common occurrences. Minor operative procedures like dilatation and curettage and hysterosalpingram can cause ascending infection.[3] A large number of microorganisms which have been isolated from the uterus and tubes in cases of salpingitis are sexually transmitted.[4] Distribution of micro-organism in cases of salpingitis is as follows: [5]

Chlamydia trachomatis, Neisseria gonorrhoeae, Neisseria gonorrhoae plus other Micro-Organisms, Aerobic bacteria only (not gonococcus), Anaerobic bacteria only, Mixed aerobic and anaerobic bacteria (not gonococcus), Mycoplasma species only, Mycoplasma species plus other micro-organisms, Mycoplasma tuberculosis.

Keeping in view the above fact and remembering that pelvic inflammatory disease is preventable, the following study was undertaken with the following aims and objectives: To study the etiological agent of PID by cervical smear cytology in study population and to determine the prevalence of cervical dysplasia among PID patients.

Material and methods:

The present cross-sectional study was conducted in J.N. Medical College and Hospital (J.N.M.C.H.), Aligarh Muslim University, Aligarh. The patients were selected from the Gynaecological OPDs of the Department of Obstetrics and Gynaecology, Rural and Urban Health Training Centres (R.H.T.C & U.H.T.C) of the Department of Community Medicine. Permission for doing the study was taken by the Board of Studies in the Department of Community Medicine, Jawaharlal Nehru Medical College, Aligarh Muslim University, Aligarh.

The study was carried out for a period of one year, from 1st August 2001 to 31st July 2002. The present study was carried out among ever-married females in the reproductive age group of 15 to 49 years. All the above mentioned females attending the Gynaecology OPD in the JNMCH, UHTC and RHTC were screened by a verbal questionnaire. The symptoms of reproductive morbidity as perceived by the women themselves were grouped on the basis of symptom complexes and a presumptive diagnosis was made. A vaginal discharge with or without foul smell and / or genital itching and / or redness of genitalia were reported, then a presumptive diagnosis of vaginitis was made. Low backache, lower abdominal pain with fever or vaginal discharge was taken to indicate pelvic inflammatory disease.

Women identified as having PID, were asked to give their consent for the study. Their refusal, was taken as exclusion criteria. Females with PID who were menstruating or who had taken

antibiotic within the previous month were also excluded from the study.

A total of 350 ever married females were selected from the Gynaecology OPD of J.N. Medical College Hospital (n=170), Urban Health Training Centre (n=100) and Rural Health Training Centre (n=80).

The females selected for the study from the Gynaecology OPD of JNMCH were labeled as group I while those selected from UHTC and RHTC were labeled as group II and group III respectively.

All the females under study were subjected to per vaginal examination and the cervical discharge was collected.

An Ayre s spatula was introduced for making a PAP smear slide. The PAP smear slide was sent to the Department of Pathology after each OPD sessions.

Results:

Out of 350 married females, who were investigated by PAP smear, the overall percentage of females with specific and non specific infection was 70.9%, among them 210 (60.0%) females were found to have non-specific infection, 21 (6.0%) females suffered from Trichomonas vaginalis (T.V) infection, 10 (2.9%) females from Gardenella vaginalis (G.V) infection, 1 female had (0.35%) Chlamydial infection and 6 females (1.7%) Fungal infection. (Table-1).

Table 1: Distribution of the study population according to PAP smear results (n = 350)

Gynecology OPDs		Non SP. Infections	T.V. Cases	G.V. Cases	Chlamydia Cases	Fungal Cases	Normal Smear	Mild to Moderate Dysplasia	Severe Dysplasia	Total
Groups	I	119 (70.0)	7 (4.1)	4 (2.4)	1 (0.6)	2 (1.2)	29 (17.0)	8 (4.7)	0 (0.0)	170 (48.6)
	II	49 (49.0)	7 (7.0)	4 (4.0)	0 (0.0)	3 (3.0)	31 (31.0)	6 (6.0)	0 (0.0)	100 (28.6)
	III	42 (52.5)	7 (8.7)	2 (2.5)	0 (0.0)	1 (1.2)	22 (27.5)	5 (6.3)	1 (1.2)	80 (22.8)
Total		210 (60.0)	21 (6.0)	10 (2.9)	1 (0.3)	6 (1.7)	82 (23.4)	19 (5.4)	1 (0.3)	350 (100.0)

T.V. =Trichomonas vaginalis G.V. =Gardenella vaginalis
(The figures in parenthesis show percentage)

Prevalence of cervical dysplasia by cervical smear cytology revealed that 82 (23.4%) females had normal smear, 19 (5.4%) females had mild to moderate dysplasia and 1 (0.35%) female had severe dysplasia. Prevalence rate of the cervical dysplasia was slightly higher in the rural women. Rates of cervical dysplasia between group I and III; between group II and III was found to be significant.

Dysplasia and Parity**:**

Table 2: Distribution of Dysplasia cases with Parity (n =350)

Parity Parity	Dysplasia		Total
	Present	Absent	
< 3	4 (3.3)	118 (96.7)	122 (34.9)
≥ 3	16 (7.0)	212 (93.0)	228 (65.1)
Total	20 (5.7)	330 (94.3)	350(100.0)

As shown in Table-2, out of 122 females with parity less than 3, 4 (3.3%) showed dysplasia on PAP smear examination. While the Corresponding figures for 228 females with parity more than 3 was 16 (7.0%). Thus cytological screening should therefore be advocated as mandatory in women above 20 years with high parity (with 3 or more children).

Dysplasia and Socio-economic Class:

Table 3: Distribution of Dysplasia cases with Socio-economic Class (n =350)

Social class	Dysplasia		Total
	Present	Absent	
I	2 (4.4)	43 (95.6)	45 (12.9)
II	3 (3.7)	79 (96.3)	82 (23.4)
III	6 (4.0)	145 (96.0)	151 (43.1)
IV	7 (10.8)	58 (89.2)	65 (18.6)
V	2 (28.6)	5 (71.4)	7 (2.0)
Total	20 (5.7)	330 (94.3)	350 (100.0)

Out of 20 cases of dysplasia, 5 cases were found in social class I and II as compared to 15 cases, which were from social class III V. The association of dysplasia was more in low socio-economic classes (III-V) in comparison to upper socio-economic classes (I-II). It was found to be statistically significant ($Z=3.75$, $p<0.001$).

Discussion:

In the present study, majority of women suffered from infection of the reproductive tract, out of these Tricomonas vaginalis was the most common infection. The findings are in corroboration of the other study wherein Trichomoniasis was the commonest infection followed by vaginal candidiasis, genital herpes, and chlamydiasis in both urban and rural women.[6] In another study by Misra et al, who in their study found in rural and urban community of lucknow by PAP smear that Tricomonas vaginalis was more in urban women compared to rural.[7] There are wide variations in the reported prevalence of various RTIs, depending on the population studied and geographic areas and the diagnostic methods used. In the present study, it was observed that cervical dysplasia was more in women of high parity. The findings are in concordance with the findings of the present study. In a study among women from Kerala, India, Varghese et al also found that increasing age, increasing parity, illiteracy and poor sexual hygiene were risk factors for cervical dysplasia.[2] Misra et al. also found that dysplasia cases were more with high

parity.[7] Low socioeconomic status was also a risk factor for cervical dysplasia as observed in the present study. Gupta et al, in their study on cervical dysplasia in western Uttar Pradesh has shown that a relatively high prevalence of epithelial abnormalities in cervical smears with increasing age, parity, early age at first coitus (<20 year), and lower socioeconomic status in symptomatic women with clinical lesions on per speculum examination[8]. In a study on association of some risk factors & cervical Dysplasia/Cancer among rural women by Mhashe et al also observed that cases of dysplasia were more among women with high parity and low socio economic group[9]. The study highlights the need for laboratory investigations so that baseline data is available on the exact prevalence of the disease in the concerned populations.

Conclusion:

The study thus highlights that there is a large proportion of females who suffered from infection of non specific infection. In addition creating awareness among rural folk regarding hazards of cervical cancer and role of early detection of the disease in very essential so that large no. of women from High Risk group may visit the health centre for PAP smear check up.

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Conflicts of Interest: None Funding: None

Citation: Eram U, Khalique N, Shah MS, Ahmad A. **Cervical dysplasia in patients of PID: a study from Aligarh, Uttar Pradesh . National Journal of Medical and Allied Sciences 2014; 4(1):14-18**