

A MICROBIAL STUDY IN PATIENTS OF PID IN ALIGARHUzma Eram¹, Nema Usman², Anees Ahmed³, Najam Khalique⁴, Zulfia Khan⁵**HOW TO CITE THIS ARTICLE:**

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ABSTRACT: 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. A large number of microorganisms which have been isolated from the in cases of salpingitis are sexually transmitted.

MATERIALS AND METHOD: The present study was carried out for a period of one year, from 1st Aug. 2001 to 31st July 2002. The present study was carried out in the 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 AND DISCUSSION: Majority of females had bacterial infection and E.coli was found in maximum number of cases. Gram staining positivity was seen in few cases. But surprisingly no cases of Neisseria gonorrhoea was found. **RECOMMENDATIONS:** PID is both a medical and social problem. The means to cure it and to prevent it have long existed. But health care providers should learn how to persuade people to seek effective treatment and to have fewer sexual partners. The present study highlights the fact that maternal health is not enough, emphasis should be on women's health as a whole.

KEYWORDS: PID, microorganisms.

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. It is more common in developing countries because of unhygienic conditions than in the developed countries.

In India, as in other developing countries, many deliveries are conducted at home by dais. Criminal abortions continue to take place despite Govt. of India's liberal policy on induced abortions. Post abortal and puerperal sepsis are therefore, common occurrences. Minor operative procedures like dilatation and curettage and hysterosalpingogram can cause ascending infection.¹

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. PID is caused most commonly by Chlamydia trachomatis, Neisseria gonorrhoeae, Neisseria gonorrhoeae plus other Micro-Organisms, aerobic bacteria only (not gonococcus), anaerobic bacteria only, Mycoplasma species plus other micro-organisms and Mycoplasma tuberculosis.^{2,3}

Keeping in view the above fact and remembering that pelvic inflammatory disease is one that is wholly preventable, the following study was undertaken with the following aims and objectives:

1. To determine the causative organism of PID in study population.
2. To suggest the measures which should be taken to decrease the prevalence of the disease.

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MATERIAL AND METHODS: The present cross-sectional study was conducted in J.N. Medical College and Hospital, Aligarh Muslim University, Aligarh. The patients were selected from the gynecological OPDs of the Department of Obstetrics and Gynecology, Rural and Urban Health Training Center's of the Department of Community Medicine.

The present study was carried out for a period of one year, from 1st Aug. 2001 to 31st July 2002. The present study was carried out in the 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.

The symptoms of reproductive morbidity as perceived by the women themselves, were grouped into symptom complexes and a presumptive diagnosis was made. A vaginal discharge with or without 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 were taken to indicate pelvic inflammatory disease. From those women identified as having PID, were asked to give their consent for the study. If they refused, they were excluded from the study. Those females with PID who were menstruating or who had taken antibiotic within the previous month were excluded from the study.

Thus, a total of 170, 100 and 80 ever married females were selected from the gyn. OPDs of JNMCH, UHTC and RHTC respectively for the study. This formed the study population (total =350) of the present study. The females selected for the study from the gyn. 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. A cervical swab culture stick was introduced for culture and sensitivity and for Gram staining. It was sent to the Department of Microbiology.

RESULTS AND DISCUSSION: Out of 350 cases who were investigated microbiologically (Table -1), 261 females (74.6%) had bacterial causes of infection and 89 (25.4%) had no growth on cervical swab for culture and sensitivity. The cases of no growth were tried to be followed for suspected fungal growth. E. coli was found in 23.7% of cases (Maximum number of all the bacterial pathogens) in the present study.

It was also found that E.coli as the most common infectious organism in PID cases.^{4,5,6,7} It was also found that maximum number of PID cases had E.coli infection followed by other organism. It was.⁸ Also reported that E.coli was the most common infectious organism in PID cases.

The Gram staining positivity with positive or negative character was seen in 12.6% cases. Smears pertaining to Gram negative cocci were selectively screened for Neisserialmorphology. The specific arrangement of bean shaped pairs placed intra-cellularly was assessed. But surprisingly no case of Neisseria gonorrhoea was found. This is in conformity with the results of.⁹ who also did not find gonorrhoeainany of his patients. Gupta et al.¹⁰ Also reported no case of Neisseria. Sahoo et al.¹¹ found Neisseriagonorrhoea in 1% cases. There was statistically no significant difference between the prevalence rates of gram staining positivity between the group 1 and 3rd; and between the group 2nd and 3rd (By applying z-test).

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Gyn	Bacterial causes									No growth	Total
	E.coli	Staph. aureus	Strep. Faecalis	Alk. fecal.	Kleb.	Coag Neg.	Pseud.	Strep gr. B	Mixed		
Grp. I	32 (18.8)	26 (15.2)	12 (7.0)	16 (9.4)	15 (8.8)	4 (2.4)	0 (0.0)	7 (4.1)	9 (5.3)	49 (29.0)	170 (48.6)
Grp. II	25 (25.8)	10 (10.0)	12 (12.0)	5 (5.0)	4 (4.0)	3 (3.0)	3 (3.0)	8 (8.0)	0 (0.0)	30 (30.0)	100 (28.6)
Grp. III	26 (32.5)	10 (12.5)	5 (6.2)	16 (20.0)	3 (3.8)	3 (3.8)	2 (2.5)	5 (6.2)	0 (0.0)	10 (12.5)	80 (22.8)
Total	83 (23.7)	46 (13.1)	29 (8.3)	37 (10.6)	22 (6.3)	10 (2.9)	5 (1.4)	20 (5.7)	9 (2.6)	89 (25.4)	350 (100.0)

Table 1: Distribution of the study population according to results of cervical swab for culture and sensitivity n = 350

Gyn. OPDs	No. of suspected cases positive	No. of suspected cases negative	Total
Grp I	21(12.4)	149(87.6)	170(48.6)
Grp II	11(11.0)	89(89.0)	100(28.6)
Grp III	12(15.0)	68(85.0)	80(22.8)
Total	44(12.6)	306(87.4)	350(100.0)

Table 2: Distribution of the study population according to Gram staining positivity n = 350

RECOMMENDATIONS: PID is both a medical and social problem. The means to cure it and to prevent it have long existed. But health care providers should learn how to persuade people to seek effective treatment and to have fewer sexual partners. The present study highlights the fact that maternal health is not enough, emphasis should be on women's health as a whole.

Timely and effective care reduces the prevalence and sequelae of PID. To provide care for people, several steps are important:

- a) Providing adolescent sex and health education among girls is must.
- b) To promote the barrier methods for contraception.
- c) To educate the pregnant females to get their deliveries conducted by doctors or doctors or nurses or trained dais.
- d) To adopt a quick, simple and effective way to diagnose and treat PID. PID can be identified by syndromes (Group of symptoms). The syndromic approach to case management is now being promoted by the World Health Organization (WHO).

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