International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Sachdeva PK et al. Int J Reprod Contracept Obstet Gynecol. 2016 Oct;5(10):3322-3325
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: http://dx.doi.org/10.18203/2320-1770.ijrcog20163178

Research Article

Incidence of pelvic inflammatory disease in backache in females

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Received: 16 August 2016
Accepted: 01 September 2016

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ABSTRACT

Background: Treatment of low backache has always been a question for the doctors due to its vast differential diagnosis. Pelvic inflammatory disease (PID) is one of the most frequent infections seen in reproductive age women and is associated with major clinical and pelvic health problem. The present study will be undertaken to study the incidence of pelvic inflammatory diseases of backache in females.
Methods: A prospective epidemiological study was done on 250 female patients in the department of obstetrics and gynaecology of Medical College, Mullana, Haryana, India during the period from September 2013 to May 2015. In this study, patients were divided into 2 groups as per their complaints. Group 1 included the patients those whose underlying complaint which was backache and had per vaginal discharge (provisionally diagnosed pelvic inflammatory disease) and group 2 included patients who had backache without any known skeletal problem and without per vaginal discharge. Patients were thoroughly interviewed and physically examined in the presence of female attendant to determine the underlying cause of backache. Follow up of the patients was done on 2, 4, 8 weeks.
Results: In this study, out of 250 female patients 216 were diagnosed as pelvic inflammatory disease as the under lying pathology along with backache that comprised of 86.4% of the study group. Out of 250 patients, 53.2% were of low socio economic status. Maximum number of patients of backache with discharge per vagina was of age group of 40-50 years which makes them 35.6% of the total patients of backache.
Conclusions: From present study, pelvic inflammatory disease is a major risk factor causing the low backache in patients and hampering their day to day activities.

Keywords: Backache, PID, Epidemiological, Vaginal discharge

INTRODUCTION

Low back pain is a major public health problem all over the world. Most people suffer incapacitating back pain at some stages in their lives. On any given day, an estimated 6.5 million people in the United States are bed-ridden because of back pain and approximately 1.5 million new cases of back pain are seen by physicians in each month. There has been growing concern about the low back disability in western society.[1] In India, occurrence of low back pain is also alarming; nearly 60 percent of the people in India have significant back pain at some time or the other in lives.[2]

Pelvic inflammatory disease (PID) is defined as the inflammation of the upper genital tract including the uterus, Fallopian tube, ovaries, and the pelvic peritoneum. If the disease is left untreated, it could result in serious consequences such as infertility, ectopic pregnancies, chronic abdominal pain, and internal pelvic scarring.[3,4] PID is common public health problem with serious repercussion on women's health and wellbeing. Other than the chronicity of lower abdominal pain, dull aching backache marring the women's wellbeing.[5] Though few studies suggest that 24-32% women in India suffer from PID, but we do not have adequate information on magnitude, distribution and determinants

of PID and other gynaecological morbidities in developing countries.[6,7]

METHODS

A prospective epidemiological study was done on 250 female patients in the department of obstetrics and gynaecology of Medical College, Mullana, Haryana, India during the period from September 2013 to May 2015.

The study was divided into two groups: Group 1 included the patients those whose underlying complaint which was backache and had per vaginal discharge (provisionally diagnosed pelvic inflammatory disease) and group 2 included patients who had backache without any known skeletal problem and without per vaginal discharge. Follow up of the patients was done on 2, 4, 8 weeks.

Inclusion criteria

Patients were thoroughly interviewed and physically examined in the presence of female attendant to determine the underlying cause of backache. Patients found with problem other than orthopedics were guided to the required specialist or department and patients found with any underlying pathology were referred for necessary treatment.

Patients having gynaecological complaints were got examined by the gynecologist. Routine investigations like ESR, X-ray spine and any other necessary investigations including any ordered by the gynecologist were done to arrive at the diagnosis.

After the end of the study the results were evaluated to determine the incidence of pelvic inflammatory disease in cases of backache in female patients of child bearing age.

Exclusion criteria

Patients having clear signs of disc prolapse, tuberculosis of spine or any other spinal disease were being excluded from the study. Relevant investigations were done to rule out any spinal pathology.

Statistical analysis

All parameters in this study were expressed in percentage.

RESULTS

Maximum number of female patients were from the age group of 40-50 years compromising of 35.6 % of the total number of female patients visited the OPD with complain of backache (Table 1).

Table 1: Age distribution of the patients visiting the outpatient department with complaint of low backache.

Age in years	Number of patients	Percentage
20-30	66	26.4
30-40	72	28.8
40-50	89	35.6
>50	23	9.2
Total	**250**	**100.0**

As per the patients socio economic status, maximum number of patients belonged to low socioeconomic status compromising of 53.2% of the total female patients with complain of backache (Table 2).

Table 2: Association between pelvic inflammatory disease and socio-demographic characteristics.

Demographic parameters	Number of patients	Percentage
Socioeconomic status		
High	24	9.6
Low	133	53.2
Middle class	93	37.2
Education status		
Educated	206	82.4
Uneducated	44	17.6
Work satisfaction status		
Satisfied with job	231	92.4
Unsatisfied with job	19	7.6
Obese status		
Obese patients BMI = or >30	153	61.2
Non-obese patients	97	38.8
Smoking status		
Smokers	32	12.8
Non-smokers	218	87.2

Out of the 250 female patients included in the study maximum number of patients was educated. Educated patients in our study came to be 82.4 % of the total. Uneducated patients were 17.6% of the total (Table 2).

In our study, 231 number of the female patients were satisfied by the work they were doing may be its household work or any kind of employment. That makes them 92.4% of the total. 19 patients were unsatisfied by their jobs, that makes them 7.6% of the total (Table 2).

In our study there were 153 female patients who were obese that makes them 61.2% of the total number of patients involved in our study. Maximum numbers of patients were nonsmokers. Smokers who presented with complain of low backache were 12.8% of the total number of patients, while nonsmokers were 87.2% (Table 2).

In our study, 33 female patients gave the history of using oral contraceptive pill users. That makes them 13.2% of the total female patients included in the study. 217 were those who did not gave the history of using oral contraceptive pills that makes them 86.8%. In our study, 215 numbers of patients did not have intra uterine devices out of 250 patients who visited with complain of low backache. That makes them 86% of the total study patients (Table 3).

Table 3: Association between pelvic inflammatory disease and birth control methods.

Birth control methods	Number of patients	%
Oral contraceptive pills count		
Oral contraceptive pills	33	13.2
Non-oral contraceptive pills	217	86.8
Intra-uterine device status		
Intra-uterine device present	215	86
Intra-uterine device absent	35	14

Table 4: Duration of discharge associated with different age group.

Age group	Duration of discharge			
	<3 months	<6 months	<9 months	<12 months
20-30	22	28	7	1
30-40	11	32	19	2
40-50	2	16	45	2
>50	0	1	7	8

Table 5: Number of patients distribution as per their Pap smear report findings being inflammatory or non-inflammatory.

Pap smear findings	Number of patients distribution
Inflammatory cells	121
Non-inflammatory cells	95
Total	**216**

Maximum number of patients was in the age group of 40-50. 35.1% of the patients of our study with complain of backache along with associated vaginal discharge were from 40-50 age group (Table 4). Number of patients with the inflammatory cells in their Pap smear report was 121 out of the 216 patients. That makes them 56.01 of the total. Number of patients with non-inflammatory cells found was 95, which makes them 43.9 of the total (Table 5).

DISCUSSION

In our study we observed that low backache incidence increased with age which comprised 26.4% of 20-30 years age group, 28.8% of 30-40 years age group and 35.6% of 40-50 years age group. This is agreement with the study conducted by Leino P et al which stated that low backache symptoms were more prevalent in females and prevalence of low backache increases with age.[8]

44 females (17.6%) of total patients in our study were uneducated and unemployed. Hurwitz et al, stated in his study that age 25-64 years and uneducated and unemployed population are often at higher risk having disabling back conditions.[9]

Out of 250 patients who visited our OPD with complain of low backache, 19 female patients 7.6% of total patients reported that they were unsatisfied with their job and also do not get a good social support. Hoogendoorn WE et al conducted a study stated that low social support in the workplace and low job satisfaction are risk factors for low back pain.[10]

Only 6 females' patients (2.4%) of all the 250 patients had to change their job due to complain of backache but none of them had to leave their job. Sharma SC conducted a study which stated that 25% had to change or leave their profession due to backache.[11]

32 (12.8%) females among total 250 patients gave history smoking for past few years and visited to our OPD with complains of backache. Ernst E in his study stated that smoking also contributes a risk factor to backache concluding that there is relationship between low backache and smoking.[12]

153 patients who comprised 61.2% of total patients included in the study were overweight or obese concluding a direct relation between obesity and backache. Deyo et al in 1989 and Lake JK stated in their studies that obesity is also a contributing factor or obesity increases the risk of back pain.[13]

216 females (86.4%) of the 250 patients included in the study were treated for pelvic Inflammatory disease and 34 for backache. Cypress BK et al studied the characteristics of physician visits for back pain symptoms.[14]

33 (13.2%) females among total 250 patients gave the history of using oral contraceptive pills for prolonged period and presented with complain of backache in our OPD. Martin V et al in their study examined that certain back disorders occur more frequently in oral contraceptive pills users.[15]

CONCLUSION

From present study, pelvic inflammatory disease is a major risk factor causing the low backache in patients and hampering their day to day activities.

Female patients with presenting complaint of back pain along with associated complaint of vaginal discharge should be got examined and investigated for underlying

gynaecological pathology and should be treated for underlying pathology (PID) along with the conventional treatment of backache.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Sachdeva PK, Dahiya A, Singh R. Incidence of pelvic inflammatory disease in backache in females. Int J Reprod Contracept Obstet Gynecol 2016;5:3322-5.