

Original Research Article

Incidence of pelvic inflammatory disease in females presenting with low backache in orthopedic OPD

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Received: 05 July 2022

Revised: 30 July 2022

Accepted: 06 August 2022

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ABSTRACT

Background: Low backache (LBA) is one of the major global public health problems. It causes great disability and distress among females and hampers their day-to-day activities. Pelvic inflammatory disease (PID) is one of the major causes for LBA. Early diagnosis and treatment of PID leads to significant improvement in symptoms of LBA and prevents complications related to PID. The aim of the study was to determine the incidence of pelvic inflammatory disease (PID) in females attending orthopaedics OPD with complaints of low backache (LBA).

Methods: A prospective epidemiological study was done on 200 female patients attending orthopaedics OPD. Detailed history was taken followed by thorough examination. Patients were interviewed regarding their age, parity, demographic parameters, associated complaints, type of contraceptive use and addiction status.

Results: Out of 200 female patients with LBA, PID was found in 55 (27.5%) patients. Majority (37%) of patients were from the age group of 40-49 years. 65% of patients were of low socio-economic status, 75% females were illiterate, 63.5% females were obese, 28% females were addicted to smoking, 24% tobacco chewing and 76.5% were parous. 53% of patients complained of discharge per vaginum. 42.5% females used oral contraceptive pills and 25.5% females had an intrauterine contraceptive device inserted.

Conclusions: The study suggests that PID is a major contributing factor of LBA in female. Therefore, gynecological opinion should be taken for the complete management of LBA among females.

Keywords: Low backache, Pelvic inflammatory disease, Orthopedic OPD

INTRODUCTION

Pelvic inflammatory disease (PID) is defined as infection of upper female genital tract, which consists of uterus, fallopian tubes and ovaries, which may spread to adjacent pelvic structures and usually presents with symptoms of pain, abnormal or excessive vaginal discharge, lower backache, and lower abdominal pain. PID may also be associated fever, vulval itching or burning.¹ Low backache (LBA) is one of the major global public health issues. Low back pain is defined as pain which is localized between the costal margin and the inferior

gluteal folds, with or without leg pain. It is one of the most common causes of visiting a doctor, second most common cause of sick leave. It is of so much importance because of high direct and indirect costs it has great medical, social and economic impact for individual, family and society. Non-specific low back pain is defined as low back pain not attributed to any recognizable, known specific pathology and specific low back pain which has known specific pathological cause. For most patients with low back pain, a thorough history taking and clinical examination is sufficient. Extensive diagnostic analysis is needed in the case of nerve root

pain/radicular pain and spinal pathology, respectively after identification of red flags. Furthermore, great attention has to be given to psychosocial factors called as yellow flags which increase the risk of developing chronic low back pain and long-term disability.² In India, almost 60% of the people suffer significant amount of back pain at some point or the other in their lives.⁴ PID is a common health problem with serious adverse effects on the health and well-being of women.⁵ Both lower abdominal pain and dull aching backache is common symptoms of PID. Studies report that 24-32% of women in India suffer from PID, but there is inadequate information on magnitude, distribution and determinants of PID in developing countries. Therefore, it is essential for clinicians to rule out PID among female patients presenting with low backache.

Aim

The aim of the study was to determine incidence of pelvic inflammatory disease in females presenting with low backache in orthopedic OPD.

METHODS

We have conducted a prospective epidemiological study on 200 female patients attending orthopedics OPD at Institute of Medical Sciences during the period from July 2021 to December 2021. Detailed history was taken followed by thorough examination. Proper information regarding their age, parity, demographic parameters, associated complaints, type of contraceptive use and addiction status was taken from the patients. All other causes of backache were ruled out. All the investigations like CBC with ESR, urine routine microscopy, X-ray spine etc. were done for the correct diagnosis of cause of PID. Patients were also sent to the STI clinic for relevant investigations.

Inclusion criteria

Female patients attending orthopedics OPD with lower backache.

Exclusion criteria

Those patients with clear signs of disc prolapse, tuberculosis of spine or any other spinal disease were excluded from the study.

Ethical approval

Ethical committee approval was obtained for conducting the study.

Statistical tool

At the end, the results were evaluated to determine the incidence of PID in cases of LBA. All parameters were expressed as percentages in tables and graphs.

RESULTS

Out of 200 patients with LBA, PID was found in 55 (27.5%) patients. Highest number of patients belonged to the age group of 40-49 years. They formed 37% of the total number of females with backache.

Table 1: Age distribution of patients.

Age in years	Number of female patients	Percentage
19-29	23	11.5
30-39	66	33
40-49	74	37
≥50	37	18.5
Total	200	100

Table 2: Number of female patients with associated complaints.

Associated complaints	Number of female patients	Percentage
Discharge per vaginum	106	53
Dyspareunia	45	22.5
Lower abdominal pain	86	43
Fever	28	14
Frequency of micturition	23	11.5
Menstrual irregularities	62	31
Infertility	52	26

Maximum number of patients were of low socio-economic status 130 (65%), 46 (23%) belonged to middle and 24 (12%) to high socio-economic status. 150 (75%) females were illiterate as compared to 50 (25%) literate females. 127 (63.5%) females were obese as compared to 73 (36.5%) non obese females. 56 (28%) females were addicted to smoking, 48 (24%) to tobacco chewing as compared to 96 (48%) non-addicted.

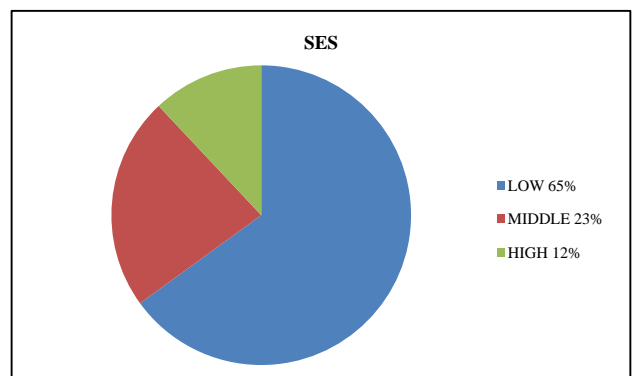


Figure 1: Socio economic status.

Majority of patients 153 (76.5%) were parous as compared to 47 (23.5%) nulliparous patients.

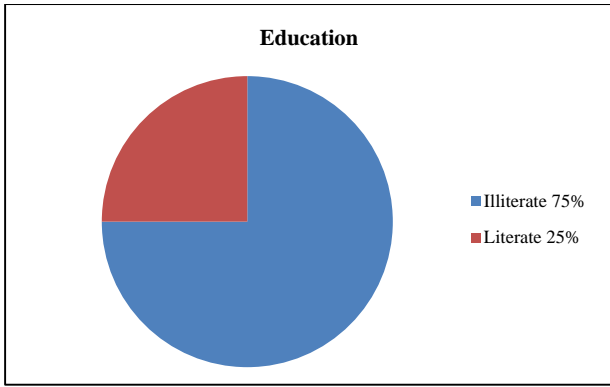


Figure 2: Educational status.

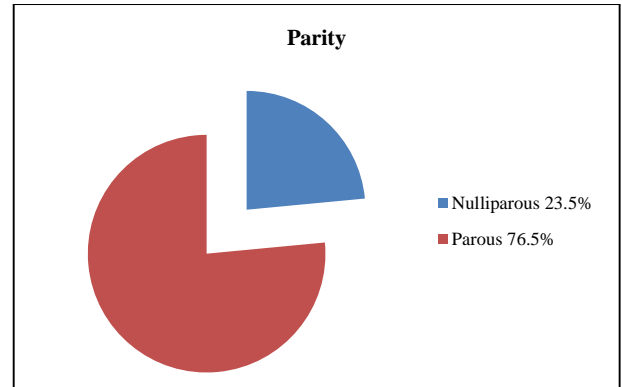


Figure 5: Parity.

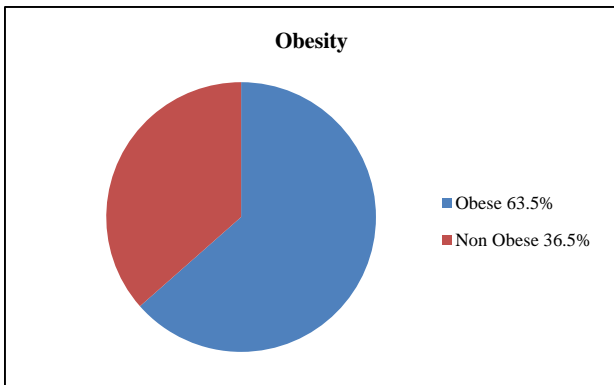


Figure 3: Obesity status.

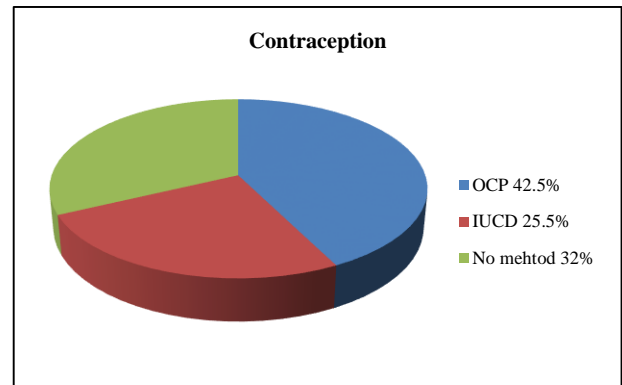


Figure 6: Percentage of females using various contraceptive methods.

The majority 106 (53%) of patients had complaint of discharge per vaginum. 2 females were found to be sero positive (HIV positive). These patients were referred to STI clinic and ART centre in our hospital for further management. Other associated complaints are shown in Table 2.

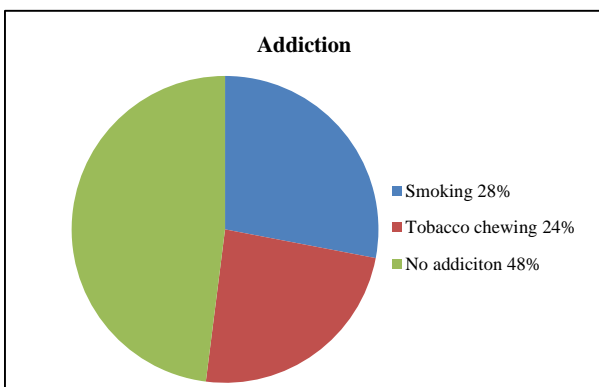


Figure 4: Addiction.

Most patients presented with more than one complaint. Majority 85 (42.5%) of patients used oral contraceptive pills as method of contraception. 51 (25.5%) females used intrauterine contraceptive device as compared to 64 (32%) females who did not use any method of contraception.

DISCUSSION

The incidence of PID in LBA females was found to be 27.5% in our study. The highest incidence 37% was found in age group 40-49 years, 33% in age group 30-39 years, 23% in age group 19-29 years and 18.5% in age group ≥ 50 years. Leino et al and Sachdeva et al also found in their study that low backache was more common in females with increasing age.^{7,8} 63% of patients belonged to low socio-economic status, while 25% were of middle and 12% of high socioeconomic status. 75% of females were found to be illiterate as compared to 25% literate females. Hurwitz et al also found that illiterate people are at higher risk of having disabling back conditions.⁹ 63.5% females were found to be overweight or obese as compared to 36.5% non-obese females in our study. Lake et al and Deyo et al also found in their study that obesity was one of the contributing factors in backache.^{10,11} In our study 28% females smoked, 24% chewed tobacco as compared to 48% females with no addiction habits. Ernst found a relation between smoking and LBA in his study.¹² 76.5% of patients were parous as compared to 23.5% nulliparous patients suggesting a relation between the number of times a female becomes pregnant and breastfeeds her newborn leading to deficiency of calcium and incidence of LBA. Most of the females 53% presented with complaints of white discharge per vaginum. Other associated complaints were

dyspareunia, lower abdominal pain, and fever, frequency of micturition, menstrual irregularities and infertility. Most females presented with more than one complaint. Bhatia et al. conducted a study on females reporting with different symptoms related to gynecological morbidity.⁶ 32% females did not use any method of contraception, 42.5% used oral contraceptive pills and 25.5% females had an IUCD (intra uterine contraceptive device) inserted. Martin et al found in their study that back disorders were common in oral contraceptive users.¹³

Since this study has a small sample size, the results of the study cannot be generalized onto larger population. In some females with LBA, PID was an incidental finding as a result the further changing the statistics.

CONCLUSION

The present study suggests that there is increased need for investigating females diagnosed with low backache for PID, as both conditions can often co-exist. As soon as PID is diagnosed it should be treated promptly after proper checkup and investigations by a gynecologist. The patients should also be referred to STI Clinic for proper counseling. Early diagnosis and treatment of PID will lead to early alleviation of symptoms of low backache (LBA) thus leading to decrease in morbidity in females which hampers their day-to-day activities.

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: Deshpande J, Singh CK. Incidence of pelvic inflammatory disease in females presenting with low backache in orthopedic OPD. Int J Res Med Sci 2022;10:1954-7.