International Journal of Medical and Health Research
ISSN: 2454-9142
Received: 04-04-2020; Accepted: 08-05-2020; Published: 17-05-2020
www.medicalsciencejournal.com
Volume 6; Issue 5; 2020; Page No. 37-39

Incidence of pelvic inflammatory disease in females with low backache in a tertiary care centre in Uttarakhand

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Abstract
Introduction: Low backache (LBA) is a major public health problem world-wide. This disability causes much distress to females and hampers her day to day activities. Pelvic inflammatory disease (PID) is a very important causative factor for LBA and if diagnosed and treated early can lead to significant improvement in symptoms of LBA.
Aim: The aim of this study was to determine the incidence of Pelvic inflammatory disease (PID) in women attending orthopaedics OPD with complaints of low backache (LBA).
Material and Methods: A prospective epidemiological study was done on 200 female patients attending orthopaedics OPD in Government Doon Medical College, Dehradun during the period from July 2018 to December 2018.
Detailed history was taken and thorough examination was done. They were interviewed regarding their age, parity, demographic parameters, associated complaints, type of contraceptive use and addiction status.
Results: Out of 200 patients with LBA, PID was found in 52(26%) patients. Maximum number (41.5 %) of patients was from the age group of 40- 49 years. Majority of patients (62%) were of low socio-economic status, 78% females were illiterate, 61.5% females were obese, 28% females were addicted to smoking/ tobacco chewing and 77 % were multiparous. 54% of patients complained of discharge per vaginum. 21.5% females used oral contraceptive pills and 31% females had an intrauterine contraceptive device inserted.
Conclusion: The present study suggests that PID is a major contributing factor in LBA in females.

Keywords: LBA, PID, discharge per vaginum

1. Introduction
Pelvic inflammatory disease (PID) is an infection of upper female genital tract, including uterus, fallopian tubes and ovaries, which may spread to contiguous pelvic structures and present with pain, abnormal or excessive discharge, lower backache, lower abdominal pain, associated fever, vulval itching and burning [1].
Low backache (LBA) is a major public health problem worldwide. According to Borenstein, low back pain should be viewed a medical disorder, with the aim to return to regular physical activity as soon as possible and to enable patient to receive the most beneficial care at optimal times [2]. There has been growing concern about low back pain in the western society [3].
In India also, almost 60% of the people have significant back pain at some time 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 in PID. Some 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 [6].

2. Aim
The aim of this study was to determine the incidence of Pelvic inflammatory disease (PID) in women attending orthopaedics OPD with complaints of low backache (LBA).

3. Material and Methods
A prospective epidemiological study was done on 200 female patients attending orthopaedics OPD in, Government Doon Medical College, Dehradun during the period from July 2018 to December 2018.
Detailed history was taken and thorough examination was done. They were interviewed regarding their age, parity, demographic parameters, associated complaints, type of contraceptive use and addiction status. All other causes of backache were ruled out. Routine investigations like CBC with ESR, Urine routine microscopy, X- Ray spine etc was done. Patients were sent to the STI clinic for treatment and relevant investigations.
Those patients with clear signs of disc prolapse, tuberculosis of spine or any other spinal disease were excluded from the study.
After the end of the study the results were evaluated to determine the incidence of pelvic inflammatory disease in cases of LBA. All parameters were expressed as percentages in tables and graphs.

4. Results
Out of 200 patients with LBA, PID was found in 52(26%) patients. Maximum number of patients was from the age group of 40- 49 years. They formed 41.5 % of the total number of females with backache. (Table 1)

Table 1: Age Distribution of patients

Age in years	Number of women	Percentage
19 – 29	27	13.5
30 – 39	71	35.5
40 – 49	83	41.5
>= 50	19	9.5
Total	200	100

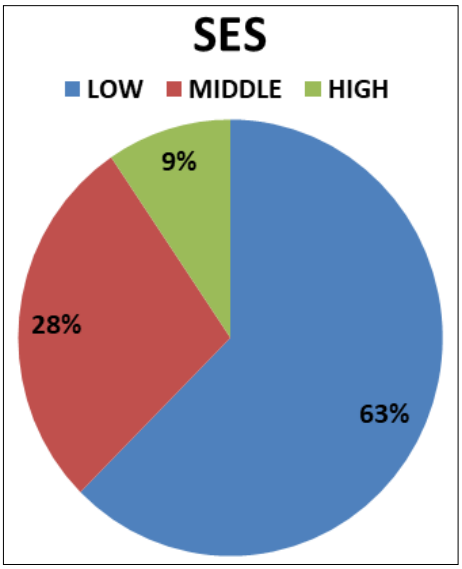

Fig 1: Socio economic status

Majority of patients were of low socio-economic status 124 (62%), 56 (28%) belonged to middle and 20 (10 %) to high socio-economic status.
158 (78%) females were illiterate as compared to 42 (22%) literate females. 123(61.5%) females were obese as compared to 77(38.5%) non obese females. 56(28%) females were addicted to smoking/ tobacco chewing as compared to 144 (72%) non-smokers.

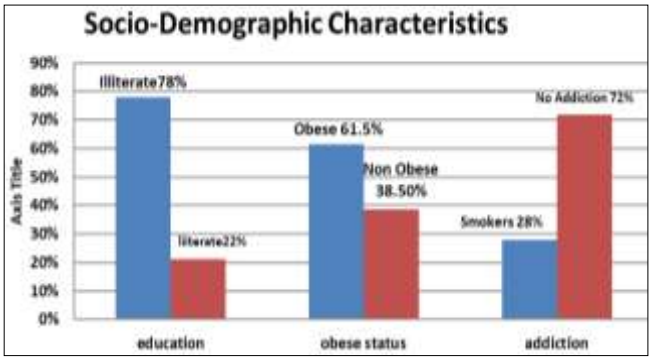

Fig 2: Socio demographic characteristics

Majority of patients 154(77 %) were multiparous as compared to 46(23%) primiparous patients.

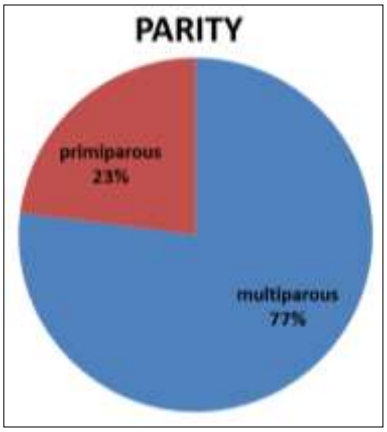

Fig 3: Parity

The majority 108 (54%) of patients complained of discharge per vaginum. 1 female was found to be VDRL positive in our study. 2 females were both VDRL and Sero positive (HIV positive). These patients were further referred to STI clinic and ART Centre in our hospital. Endometriosis was found concomitantly in 12(6%) females. Other associated complaints are shown in Table 2.

Table 2: Number of females with associated complaints

Associated complaints	Number of females	Percentage (%)
Discharge per vaginum	108	54
Dyspareunia	38	19
Lower abdominal pain	88	44
Fever	21	10.5
Frequency of micturition	32	16
Menstrual irregularities	60	30
Infertility	43	21.5

Most patients presented with more than one complaint.
Majority 95(47.5%) of patients did not use any method of contraception. 43 (21.5%) females used oral contraceptive pills and 62(31%) females had an intrauterine contraceptive device inserted.

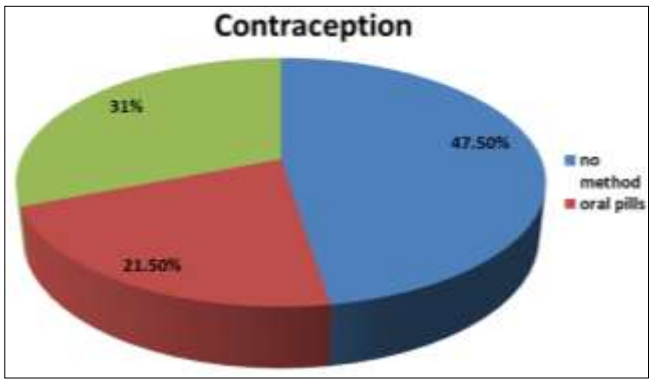

Fig 4: Number of females using various contraceptive methods

5. Discussion

The incidence of PID in LBA females was found to be 26 % in our study. The highest incidence 41.5% was found in age group 40- 49 years, 35.5% in age group 30- 39 years, 13.5 % in age group 19- 29 years and 9.5% in age group >= 50 years. Leino P *et al* and Sachdeva PK *et al* also found in their study that low backache was more common in females with increasing age [7, 8].

62 % of patients belonged to low socio-economic status, while 28 % were of middle and 10 % of high socio-economic status. 78 % of females were found to be illiterate as compared to 22 % literate females. In his study Hurwitz *et al* also found that illiterate people are at higher risk of having disabling back conditions [9].

61.5% females were found to be overweight or obese as compared to 38.5% non-obese females in our study. Lake JK *et al* and Deyo *et al* also found in their study that obesity was a contributing factor in backache [10, 11].

In our study 28 % females smoked or chewed tobacco as compared to 72 % females with no addiction habits. Ernst E found a relation between smoking and LBA in his study.[12]

77 % of patients were multiparous as compared to 23 % primiparous 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 54 % 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 gynaecological morbidity [6].

47.5 % females did not use any method of contraception, 21.5 % used oral contraceptive pills and 31 % 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].

6. 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 gynaecologist. The patients should also be referred to STI Clinic for proper counselling. 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.

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