



Low back pain in obstetricians and gynecologists

Pande Ketan¹, Pande Sonali¹, Saleem Mohammed¹, Panpaliya Sanjeev¹, Bhojwani Raj²

¹ Sushrut Hospital Research Centre and PGI Orthopaedics, Ramdaspath, Nagpur, and ² Cheeranji Nursing Home, Lakdipool, Mahal, Nagpur

OBJECTIVE(S) : To assess the prevalence of low back pain (LBP) in obstetricians and gynecologists and to study its association with other variables.

METHODS(S) : Members of local obstetric and gynecological society were approached with a pre-designed questionnaire to obtain demographic details and issues related to their practice.

RESULTS : Completed questionnaires were obtained from 77 members. The lifetime prevalence of LBP was 53%. The occurrence of LBP was significantly correlated with the body weight (pain vs no pain; 65 ± 10 kg. vs 59 ± 10 kg; $p < 0.01$). We found no correlation of occurrence of low back pain with other variables like age, height, years in practice and number of surgeries performed per month.

CONCLUSION(S) : A large number of obstetricians and gynecologists suffer from LBP and it can be a cause of significant disability. To reduce this incidence particular attention should be given to good ergonomic practices and to maintaining proper body weight.

Key words : low back pain, obstetrician, gynecologist, occupational disorder

Introduction

Low back pain (LPB) is second only to common cold as a reason to seek medical advice. LBP is a major cause of sickness, disability and absence from work¹. The frequency of LBP reported over a given period (prevalence) depends on the exact wording of the question. In various studies, between 14-30% of people reported some back pain or trouble on the day of the interview and 30-40% in the previous month. Approximately 60% report back pain at some point in their life, though it is likely that even larger proportion have had some lesser symptoms at some time².

Certain occupational groups report higher prevalence

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Correspondence :

Dr. Ketan Pande

Consultant Orthopaedic Surgeon

Sushrut Hospital, Research Centre and PGI Orthopaedics

Central Bazar Road, Ramdaspath, Nagpur 400 010

Tel. 0712-2542426 Email : ketanpande@yahoo.com

rates³⁻⁶ and in some studies biomechanical factors within the workplace have been examined^{3,6-8}. A number of studies have reported on the prevalence of low back pain within the health care sector^{3-5,9-11} but only one previous study has addressed this issue in obstetricians and gynecologists¹².

The present survey was undertaken with the aim of assessing the prevalence of low back pain in obstetricians and gynecologists and also to study its association with different variables.

Methods

Current members of the Nagpur Obstetric and Gynecological Society were considered as eligible subjects. They were approached with a covering letter outlining the purpose of the survey and a brief questionnaire.

The first part of the questionnaire consisted of the following questions: age, sex, height, weight, years in practice, and number of surgeries performed per month (in sitting and standing position).

The second part consisted of questions related to LBP, particularly its occurrence in the past, and in the past month and week. The subjects were also asked whether they had to stop work during the episode of LBP. Further questions consisted of need for specialist consultation, investigations and surgery for LBP.

To ensure confidentiality, subjects were asked not to mention their names on the questionnaire. They were identified numerically when the data was transferred to the computer. The data was analyzed using standard statistical tests with the help of SPSS version 10 software.

Results

Of the 80 members approached, 77 returned the completed questionnaire. One of the questionnaires was incompletely filled and hence not included in the analysis. Thus the response rate was 95% (76/80).

There were 64 female and 12 male members. A large number of subjects (40/76; 52.6%) had experienced LBP in the past. A total of 33 female and 7 male members reported LBP. There was no difference in the occurrence of LBP between the two groups.

The prevalence of LBP in the month and week preceding the answering of the questionnaire was 34.2% (26/76) and 25% (19/76) respectively.

A total of 6.6% (5/76) subjects reported stopping work due to pain while 17% (13/76) consulted a specialist for it. Various investigations were performed in 10.5% (8/76) of subjects while one subject had undergone surgery for LBP.

The association between occurrence of LBP and other variables like age, sex, years in practice, height, weight, and number of surgeries performed per month were also analyzed and the results are presented in Table 1. We did not find any effect of sitting or standing position during surgery on the occurrence of LBP.

Table 1. Different variables in subjects with and without low back pain.

Variable	Low back pain	No low back pain	P value
Age (years)	38.05 ± 9.9(40)	38.39 ± 10.7(36)	NS
Years in practice	10.7 ± 7.7(38)	13.09 ± 9.9(32)	NS
Height (cm)	160.01 ± 0.51(40)	157.58 ± 0.2(36)	NS
Weight (kg)	64.7 ± 9.9 (40)	58.6 ± 10 (36)	0.003
Surgeries/month	27 ± 21 (38)	23 ± 22 (31)	NS

NS - Not significant

Discussion

This survey reports a 53% prevalence of LBP in a local group of obstetricians and gynecologists. We have found the weight of the subject to have a significant association with occurrence of LBP while other variables like age, sex, height, years in practice, and number of surgeries performed per month had no effect on the occurrence of LBP.

The only study of low back pain in a similar group of subjects has reported a prevalence of 72%¹². The higher incidence reported could be due to the fact that these authors had also included pain in the thoracic spinal region along with LBP. Fifty-three percent of those with back pain in that study blamed it on working in obstetrics and gynecology. This particular issue was not addressed in the present survey. Similar to the findings of the present study, these authors did not find any association between the position of the surgeon during surgery on the occurrence of LBP¹².

The obstetrician and gynecologist is frequently required to adopt awkward postures during clinical examination as well as surgery. This may involve prolonged standing (static posture), and bending and twisting of the trunk. These postural habits have been shown to lead to musculo-skeletal stress in other occupational groups⁷.

The etiology of back pain is multi-factorial and it is very prevalent in the general population. These two factors present difficulty when trying to establish the importance of occupational factors. Dolan and Martin¹² have explored this to some extent and reported that 54% of their subjects had back pain while performing vaginal surgery and 48% had back pain while performing abdominal surgery. Prolonged static positions likely to be adopted during operations are known to contribute to musculoskeletal stress¹.

The present study has demonstrated differences in body weight of subjects who did or did not have low back pain. Subjects who reported low back pain weighed significantly more (65±10 vs 59±10 kg; P<0.01) than subjects who did not have low back pain. Obesity is known to increase both the direct vertical compressive load on the spine and the anteriorly acting loads, which through the action of the muscles creates very large joint reaction forces.

The present study also demonstrates that LBP had a significant impact on the individual with 7% having to stop work and 17% needing specialist consultation. These figures are lower than those reported by Dolan and Martin¹². In their study, 20% of the subjects reported taking time off work due to back pain and 8.4% underwent surgery. In

contrast, only one (1.32%) subject in the present survey underwent surgery for low back pain. This may reflect differences in the management approaches in the two populations.

A few limitations of the present study must be recognized. The questionnaire did not attempt to identify the common activity, which led to back pain nor did it attempt to have the clinician's own perception of the origin of LBP. The length of time off work and the treatment taken would have added to the relevance of the survey. The number of subjects surveyed represents about a third of the total members of the association. We feel that the findings in a third of the members would represent the whole membership.

We have established that there is a high prevalence of LBP in obstetricians and gynecologists. In some cases it can cause significant disability and a need for specialist consultation and investigations. Though we recognize the need for further work in this area with respect to medical personnel, available evidence from literature suggests that biomechanical factors do have an impact on the incidence of LBP. Attention must be paid to good ergonomic practices and particularly to control of weight as this was identified in the present study as an important factor.

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