

**Original research article**

## **A study of low back ache in working women of reproductive age group**

**<sup>1</sup>Dr. Adarsh S, <sup>2</sup>Dr. Sharadha KS**

<sup>1</sup>Associate Professor, Department of Orthopedics, Kamineni Institute of Medical Sciences, Andhra Pradesh, India

<sup>2</sup>Associate Professor, Department of OBG, Kamineni Institute of Medical Sciences, Andhra Pradesh, India

**Corresponding Author:**  
Dr. Sharadha KS

### **Abstract**

Backaches that originate in the softer tissues of the back are highly prevalent in adults and usually strike people when they are in the prime of their working careers. Although it has been hypothesised that low back pain (LBA) in women may be linked to hormonal and reproductive factors, the results of many investigations have not reached a definitive conclusion. The association between a woman's working environment and her risk of developing LBA may be less certain, despite the fact that the women in this study were unanimous in their belief that the workplace played a causal role. LBA not only results in monetary losses for patients and society as a whole, but it also has a significant effect on a variety of patients' day-to-day lives and activities.

**Keywords:** Low back ache, working women, reproductive factors, posture

### **Introduction**

Back pain is a frequent presenting issue that many people have, especially during their working years <sup>[1]</sup>. It is one of the leading causes of illness, disability and time missed from work <sup>[2]</sup>. Pathology related to the gynaecological system, the cardiovascular system, the nervous system, the psychogenic system, the spondylogenic system, or the discogenic system could be to blame. But most of the time, the root reason can't be pinpointed, so doctors group all cases of back pain together under the umbrella label of "mechanical or postural back pain <sup>[3]</sup>". It is more common for women than it is for males to have low back pain (LBA), which leads to the idea that its origin is related to the female reproductive system. The disparity in incidence that is shown between the sexes can mostly be attributed to the fact that female musculoskeletal and ligamentous supports are not as robust as those seen in males.

In addition, the movement of the pelvic girdle during pregnancy and birth exposes the muscles and ligaments to unnecessary strains, which, after delivery, result in poor healing of the muscles and ligaments. The likelihood of having a higher total number of live births is increased when one has LBA <sup>[4, 5]</sup>. After giving birth, women are often required to perform additional strenuous activities, such as prolonged bending while performing home chores or lifting the infant. During that time, she does not get enough rest or sleep, which adds to the tremendous mental and emotional strains that she experiences as a result of being a mother. Obesity, bending and lifting, poor posture, a pendulous abdomen, flat feet, poorly made shoes with high heels, and long hours spent at work or an office desk are major causes of minor repetitive trauma. Other contributing factors include high heels and flat feet. Muscle spasms are characteristic of many disorders, and it has been hypothesised that the spasms themselves may be the cause rather than the outcome of the conditions. Any LBA that is the result of a gynaecological lesion will be diffuse in nature, will be located in the midline, and will, most significantly, be accompanied by anterior pelvic pain. In most cases, an intrapelvic lesion is not the cause of a backache that has a specific location that can be pinpointed with the finger or that is accompanied by local soreness <sup>[6]</sup>. The first and most important stage in the treatment of LBA is to identify the underlying reason by performing a careful, in-depth history and physical examination, which should also include a pelvic exam. Radiological and even MRI can be helpful in the evaluation process sometimes. Treatment is dependent on the aetiology; however, when a definitive lesion cannot be established, it is recommended that the patient receive reassurance and understanding, improve their posture, perform abdominal-spinal exercises, wear suitable foot wear and get sufficient rest. In very rare cases, if there is a major neurological loss, spinal decompression surgery (laminectomy or discectomy) may be required. More commonly, local injections of anaesthetic solutions are used.

**Aims and Objectives**

The aim of this study was to establish the prevalence of LBA in a group of working women of reproductive age group.

**Materials and Methods**

This study was done in the Department of OBG along with the help of Department of Orthopedics, Kamineni Institute of Medical Sciences, Andhra Pradesh. The study was done from Oct 2014 to Oct 2016.

**Inclusion criteria**

- Females in child bearing age group.

**Exclusion criteria**

- Menopause.
- Pre-Menopause.
- Before menarche.
- Pelvic congenital anomalies.

The women were evaluated first with a comprehensive history, then with a clinical examination. After gaining their informed consent, a new interview schedule that had been de novo constructed and tested was used to conduct the interviews.

They were approached with a covering letter and brief questionnaire that outlined the goal of the survey. The first section of the exam consisted of questions regarding the individual's age, height, weight, number of years spent working, and primary posture (sitting, standing, bending, twisting, or lifting weight) while working, as well as questions regarding the individual's medical history, sexual behaviour, reproductive history and obstetrics history. The second portion of the interview included of questions pertaining to LBA, namely its duration, occurrence in the past, location, radiation to legs, aggravating or relieving variables, and any previous therapy or admission required for it. Additionally, the participants were questioned regarding whether or not they were required to cease working during the LBA. It was determined if the infection was acute or chronic based on whether the symptoms suggested a reproductive tract infection (RTI) within the past week or within the past six months. Women who had symptoms that were indicative of a reproductive tract infection (RTI), such as abnormal vaginal discharge, lower abdominal pain, urinary symptoms, vaginal pruritus, dyspareunia or suspected cases of sexually transmitted diseases (trichomonas vaginitis, gonorrhoea, syphilis or candidiasis), were not allowed to participate in the study. Women who used methods of birth control implanted inside the uterus were also not permitted. Additional inquiries centred on whether or not the patient required an orthopaedic consultation as well as investigations in the form of X-rays or an MRI. The data that was generated through the statistical analysis was collected and then statistically examined by proportions and tests of significance (Chi-square and Z-test).

**Results****Table 1:** Mean age of the patients

Number	Mean age	Std. deviation
60	35.17 years	1.68 years

**Table 2:** With and without LBA

With LBA	22
Without LBA	28

**Table 3:** Distribution

Number of deliveries	With LBA	Without LBA	Sig
0	2	8	Not Sig
1	8	10	Sig
>2	4	18	Not Sig
Number of abortion			
0	nil	nil	Not Sig
1	1	nil	Not Sig
>2	2	1	Not Sig

**Table 4:** BMI

	With LBA	Without LBA
>30	07	04
Normal	04	35

**Table 5:** Working pattern

	With LBA	Without LBA
Standing work	11	24
Sitting work	04	22

### Discussion

Back pain can be caused by a number of different factors and the condition has a high incidence rate among the general population. When working subjects are expected to sit for extended periods of time at an office or other working area, they are forced into awkward postures. The majority of jobs require extensive periods of standing, bending, or twisting on the part of employees. It has been demonstrated that different occupational groups experience musculoskeletal stress as a direct result of these extended static postures <sup>[7]</sup>. A number of musculoskeletal disorders were found to be related with many reproductive characteristics in a study of middle-aged women. These factors included having fewer than two children, a high maternal age at the last birth, and a low maternal age at the first birth (fibromyalgia) (pelvic joint syndrome). The development of large stress concentrations on spinal segments (intervertebral disc, ligaments and apophyseal joints) is the rationale that is given for why certain postures might cause back discomfort. If a posture is maintained for an extended period of time, certain tissues that are strongly laden will progressively "crawl" from the load <sup>[8]</sup>. Kwon *et al.* <sup>[9]</sup> conducted a review of the literature and found mixed data regarding the relationship between LBA and bending, twisting, lifting or pushing/pulling, but their findings were limited to statistical association and did not address the question of causation. LBP was found to not be associated with physical patient handling or assistance, uncomfortable postures, carrying, sitting, standing or walking, and these activities were judged to be strong evidence against a causal link. The current study indicated that LBA had a major impact on the individual, with 25% of them having to stop working as a result of its effects.

### Conclusion

LBA is more in working women in reproductive age group.

### References

1. Coste J, Delecoeuillier G, Cohen de Lara A, *et al.* Clinical course and prognostic factors in acute low back pain: an inception cohort study in primary care practice. *BMJ*. 1994;308:577.
2. Moffett JK, Richardson G, Sheldon T, Maynard A. Back pain: its management and cost to society. Discussion Paper 129. York, UK: Centre for Health Economics, University of York, 1995.
3. Chou R, Qaseem A, Snow V. Diagnosis and treatment of LBP: a joint clinical practice guideline from the American College of Physicians and the American Pain Society. *Ann Intern Med*. 2007;147:478.
4. Svensson HO, Anderson GB, Hagstad A, *et al.* The relationship of low back pain to pregnancy and gynecologic factors. *Spine*. 1990;15:371-375.
5. Silman AJ, Ferry S, Papageorgiou AC, *et al.* Number of children as a risk factor for low back pain in men and women. *Arthritis Rheum I*. 1995;38:1232-1235.
6. Howard FM. Chronic Pelvic Pain. *Obstet Gynecol*. 2003;101:594-611.
7. Karhu O, Harkonen R, Sorvali P, Vepsalainen P. Observing working postures in industry. Examples of OWAS application. *Appl. Ergonom*. 1981;12:13-17.
8. Adams MA, Bogduk N, Burton K, Dolan P. Posture, creep and functional pathology. *The Biomechanics of Back Pain*, 3rd ed. New Delhi: Elsevier Publishers, 2013, 173-188.
9. Kwon BK, Roffey DM, Bishop PB, Dagenais S, Wai EK. Systematic review: occupational physical activity and low back pain. *Occupational Medicine*. 2011;61:541-48.