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Original Article:

Low back pain in pregnancy: Prevalence among south Indian population

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Abstract

Females during pregnancy commonly encounter back pain at some point of time. Unfortunately, this symptom is quiet carried away and often neglected by the health care providers. Low back pain in pregnancy can have a significant impact both psychologically and physiologically as well. In the present study we intended to find out the prevalence rate for this symptom among the South Indian population by formulating a questionnaire proforma.

There was a 27.82 % prevalence rate for low back pain in our study. Though we did not differentiate the back pain as lumbar pain and pelvic girdle pain, quiet a majority of the patients (40%) were facing mild to moderate disabilities because of the pain. The mean duration at the onset of the symptoms was 26 weeks of pregnancy. The mean age of the patients with low back pain was 26 years.

Identification of the back pain symptoms during pregnancy is needed so as to assess and provide proper management to such patients.

Keywords: Low back pain, pregnancy, prevalence, disability

Introduction

Low back pain (LBP) is a commonly encountered symptom from pregnant females. Studies have estimated that LBP is prevalent in about 50 % of females at some point of time during pregnancy^[1, 2]. Although it is confined to the pelvic area and not so harmful to the females or their foetuses, it is quiet a disabling symptom^[3, 4]. LBP is said to cause moderate disability and about 10 % of patients will take off time from work^[5, 6]. Back pain in pregnancy is due to various factors, such as mechanical, hormonal and others^[1, 2, 7-9].

In the present study we tried to figure out the prevalence of LBP among the south Indian population, attending a primary health care.

Materials and Methods

The aim of this study was to determine the prevalence of LBP among the pregnant females. The study was conducted at a government primary health centre, Southern India, from January 2018 to December 2018. A proforma (fig.1) was created and data collected accordingly among all patients attending the antenatal clinic. A total of 488 patients data were collected during this period.

All the patients who were attending the antenatal clinic for the first time at the time of registration of their pregnancy were included in the study. Those patients who were in their subsequent visits at the time of initiation of this study were excluded because of the chances of error in calculations, as majority of the patients were not able to recollect an episode of LBP at their previous visits.

Apart from the patient's demographic profile, the first leading question was 'whether you have any type of back pain?' If the answer was 'No', further data's were skipped and if the answer was 'yes', the proforma was completed. The patients were subsequently followed-up until the time of delivery and if the patient had a symptom of LBP at any point of time, the proforma was completed at that time.

Patients who had LBP prior to the present pregnancy were excluded from the study. Similarly patients who had pre-existing organic pathology (intervertebral disc prolapse, spondylolisthesis, etc..) that may contribute to LBP and patients who had a recent history of trauma to the back were also excluded from the study.

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S. No.	Patient's Demographic Profile		
1.	Name		
2.	Age		
3.	GPLA		
4.	Weight and height		
5.	Address		
S.No.	LBP specific Questionnaire		
S.No.	Questions	Yes	No
1.	Whether you have LBP?		
2.	Any previous history of (H/O) LBP?		
3.	H/O any recent trauma?		
4.	Is the present pregnancy a multiple pregnancy (Twins or Triplets)?		
5.	Does the patient suffering from polyhydramnios?		
6.	H/O any spinal anaesthesia in the past?		
7.	Whether the weight gain is appropriate for the gestational age?		
8.	Duration of pregnancy at the onset of present symptoms(in weeks)		

G: gravida; P: parity; L: no. Of living children; A: no. of abortions

Fig 1: The questionnaire proforma used in the study

Results and Discussion

Data was collected for a total of 478 patients during the study period. 16 patients had a pre-existing history of back pain prior to the present pregnancy. The LBP was either a pain during menstruation or an on and off back pain of undiagnosed causes. All of these 16 cases were excluded from the study. One patient with complaint of LBP at 8 weeks of pregnancy had a history of trivial fall prior to the presentation and hence was excluded from the study. Another patient who was a multiparous woman in her third pregnancy had spondylolisthesis at L5-S1 level. Though she had no complaints of LBP during the previous two pregnancies, she was also excluded from the study. Hence a total of 460 patient's data was used to analyse the results.

A total of 128 patients were having LBP out of the 460 cases. That worked out a prevalence rate of 27.82 %. This prevalence was quiet low as compared to other studies from African [10] and Western [11] population who had prevalence of more than 50 %. LBP prevalence among Nepalese women was 34 % in a study [12] and was bit closer to that of our study. LBP in pregnancy has been predominantly classified [13, 14] into 2 types: lumbar pain (LP) and pelvic girdle pain (PGP) or

posterior pelvic pain (PPP). LP is defined as pain between the twelfth rib and the gluteal fold, while PGP is defined as pain experienced between the sacroiliac joint and the gluteal fold, or in the pubic symphysis [15]. We in the present study did not differentiate between the two types and all patients were classified to be suffering from LBP.

About 40 % of our patients (52/128) who had LBP were facing mild to moderate amount of disabilities. The natures of disabilities were mainly in the form of handling the first child and in doing household chores like fetching water. Though there was some sort of disability only 2 out of these 52 cases had severe enough pain so as to have consulted a specialist for treatment. These 2 were working women and they never took any leave from their work for the LBP. In a study by Wang *et al* [5], their disability rate was around 60 %.

Of the 460 patients in our study, a majority of them (320) were housewives and the remaining 140 were working women. 92 of them were doing constructional or household works in other homes and 48 were office going. 104 cases among the housewives had LBP, whereas 24 among the working group had LBP. The results are summarised in the table 1.

Table 1: Prevalence of LBP with regard to occupation

Patients	Number	With complaints of LBP (No.)	Prevalance (%)
Total cases	460		
Housewives	320	104	32.5
Working women	Manual work	92	23.91
	Office work	48	4.16

A total of 184 cases were in their first pregnancy, out of which 32 of them complained of LBP (17.39 %). The remaining 276 cases were either 2nd or 3rd time pregnant. 92 of them had LBP (34.78%). This trend was similar to literature which states that the prevalence of LBP increases with parity [16].

There was one case of twin pregnancy and 3 cases of polyhydramnios, but none of the 4 patients had LBP. The mean age of the patients with LBP was 26 years. The mean duration at the onset of symptoms was 26 weeks (8 to 34 weeks) towards the later part of second trimester. The mean duration at onset of pain was 24 weeks in Nepalese women [12].

LBP typically tends to begin as early as 18 weeks of pregnancy and may persist in the postpartum period for as long as 15 months [17, 18]. We in our study did not study the pattern of LBP and patients were not followed up in the

postpartum period.

LBP in pregnancy is often regarded as harmless and quiet commonly ignored by the health care professionals [19]. But they have been reported to have some serious negative psychological effects in various studies [19-21]. Therefore a lack of awareness of this predominant complaint from pregnant women can lead to poor management of such cases. The commonly reported risk factors for pregnancy related back pain are high strenuous workload, frequent or prolonged torso flexion, previous history of LBP, previous history of any trauma to the pelvis [15, 22, 23], body mass index (BMI), and parity. Though, in the present study we did not try to find out the risk factors or their causal relationship. We just tried to make out the magnitude of the problem.

The prevalence rates are influenced by the perception of pain among the various group of population. Also we did not consider the various risk factors involved like BMI. A

detailed questioner involving all the risk factors and other indicators of pain like the visual analog scale (VAS) would have been a good indicator of actual prevalence. The socio-economic status of the patient was also not included in the present study, which was another drawback of the study.

Conclusion

'Back pain' as a complaint from a pregnant woman is often regarded as harmless and a common complaint. But the high prevalence of this complaint and the implications it have in a pregnant females necessitates a proper diagnosis and management.

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