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# Original Research

## Evaluation of pregnancy related pelvic girdle pain

Dr. Smita Gupta<sup>1</sup>, Dr. Suman Mehla<sup>2</sup>

<sup>1</sup>Assistant Professor, Department of Obstetrics & Gynaecology, Muzaffarnagar Medical College, Uttar Pradesh, India;

<sup>2</sup>Associate Professor, Department of Obstetrics & Gynaecology, K.M. Medical College, Mathura, Uttar Pradesh, India

### ABSTRACT

**Background:** Pregnancy-related lumbo pelvic pain affects approximately 50% of all pregnant women. The present study was conducted to assess lumbopelvic pain and pregnancy related pelvic girdle pain. **Materials & Methods:** 56 primigravida aged between 20-35 years and gestation between 12 and 36 weeks were included. A visual analog scale (VAS) was used to determine pain intensity. **Results:** The mean age was 24.1 years, height was 1.7 meters, weight was 65.2 Kgs and period of gestation 24.3 weeks. The mean VAS score in PPGP was 5.4 and in combined was 4.8. The difference was non- significant ( $P > 0.05$ ). **Conclusion:** Pregnancy related pelvic girdle pain along with low back pain is very common.

**Key words:** Pelvic girdle pain, Primigravida, lumbopelvic pain

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**Corresponding author:** Dr. Suman Mehla, Associate Professor, Department of Obstetrics & Gynaecology, K.M. Medical College, Mathura, Uttar Pradesh, India

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### INTRODUCTION

Pregnancy is associated with many physiological and biomechanical changes. These changes lead to various types of musculoskeletal problems. Out of these the vastly studied is the pregnancy related pelvic girdle pain. Pregnancy related pelvic girdle pain (PPGP) along with low back pain are very common and this severe problem compromises normal everyday life in about one third of pregnant women.<sup>1</sup> Pregnancy related back pain encompasses low back pain (PLBP) and pelvic girdle pain (PPGP); as well combination of two. PLBP originates in the lumbar spine region, pelvic pain originates in the pelvic region predominantly near the sacroiliac joints and when no distinction can be made between PLBP and PPGP it is called as lumbo pelvic pain.<sup>2</sup>

Pregnancy-related lumbo pelvic pain affects approximately 50% of all pregnant women. For the majority the pain disappears during the first months after delivery; however, for a significant number of women, the pain is persistent, with little improvement for more than three months after delivery. Moreover, women who experience persistent lumbo pelvic pain three months postpartum are at substantial risk for new episodes or for chronic lumbo pelvic pain later in life.<sup>3</sup> Hence, pregnancy related lumbo pelvic pain should be considered a major public health issue. In order to develop and offer specific treatment strategies, it is important to identify different subgroups of lumbo pelvic pain based on different clinical presentations. Pelvic girdle pain (PGP) is one of the major subgroups of pain related to pregnancy.<sup>4</sup> The present study was

conducted to assess lumbopelvic pain and pregnancy related pelvic girdle pain.

**MATERIALS & METHODS**

The present study was conducted among 56 primigravida aged between 20-35 years and gestation between 12 and 36 weeks. All were informed regarding the study and their consent was obtained.

Data such as name, age, gender etc. was recorded. A thorough clinical examination was performed in all

patients. A visual analog scale (VAS) was used to determine pain intensity. Posterior pelvic pain provocation (P4) test was performed on all women with complaint of lumbopelvic pain. Diagnosis of PPGP was based on the five criteria as described in study by Ostgaard et al, who introduced the syndrome “posterior pelvic pain”. Results thus obtained were subjected to statistical analysis. P value less than 0.05 was considered significant.

**RESULTS**

**Table I Characteristic of patients**

Variables	Mean
Age (Years)	24.1
Height (m)	1.7
Weight (Kg)	65.2
Period of gestation (weeks)	24.3

Table I shows that mean age was 24.1 years, height was 1.7 meters, weight was 65.2 Kgs and period of gestation 24.3 weeks.

**Table II Assessment of pain**

Parameters	Mean	P value
PPGP	5.4	0.12
Combined	4.8	

Table II shows that mean VAS score in PPGP was 5.4 and in combined was 4.8. The difference was non- significant (P> 0.05).

**DISCUSSION**

Pelvic girdle pain is the pain experienced between the posterior iliac crest and the gluteal fold, particularly in the vicinity of the sacroiliac joints. The pain may radiate to the posterior thigh and can also occur in conjunction with/or separately from pain in the symphysis.<sup>5</sup>

Pelvic girdle pain (PGP) is one of the major subgroups of lumbopelvic pain related to pregnancy. The reported prevalence of PGP during pregnancy was found to be 14 to 33%.<sup>6</sup> According to European guidelines, the classification of PGP can only be made after lumbar causes have been excluded. Nevertheless, the majority of studies does not differentiate between PGP and lumbar pain and do not exclude women that report only lumbar pain.<sup>7</sup> It is important to distinguish different subgroups of lumbopelvic pain, because different subgroups exhibit different presentations. Moreover, research suggests different treatment strategies for PGP and lumbar pain in relation to pregnancy.<sup>8</sup> Pregnancy-related lumbopelvic pain is assessed and diagnosed either by clinical examination or with self-reports through questionnaires or interviews.<sup>9</sup> The present

study was conducted to assess lumbopelvic pain and pregnancy related pelvic girdle pain.

In present study, mean age was 24.1 years, height was 1.7 meters, weight was 65.2 Kgs and period of gestation 24.3 weeks. Gupta et al<sup>10</sup> conducted a hospital based observational cross-section study including 227 primigravida who were interviewed for demographic data. Those who complained of lumbopelvic pain were assessed for the diagnostic criteria for PPGP. A total of 137 primigravida (60.3%) reported lumbopelvic pain. Based on the diagnostic criteria, 68 women (29.9%) had PPGP and 69 had combined pain (PPGP + PLBP and PLBP). The mean intensity of pain in women with lumbopelvic pain using the visual analogue scale was 5.2 ±1.0 and PPGP was 5.5± 0.7. More than half of the pregnant women studied experienced lumbopelvic pain at the time of examination which shows that about 1 in every 2 primigravida had lumbopelvic pain. PPGP and combined pain (PPGP+PLBP) both are almost equally prevalent and need clinical attention.

We found that mean VAS score in PPGP was 5.4 and in combined was 4.8. PGP often starts during pregnancy or shortly postpartum but it can also occur after a traumatic incidence to the pelvis or in connection with a

rheumatic disease. Women with PGP experience deep uni- or bilateral pain in the buttocks between the iliac crest and the gluteal fold, particularly in the vicinity of the sacro-iliac joints (SIJ) and distal to the lumbar spine. It may radiate to the posterior thigh and can also occur with or separately from pain in the symphysis. Functionally, the pain can limit the ability to maintain prolonged positions and activities; in particular, endurance is diminished for standing, walking, and sitting. Clinical findings include catching of the leg, delayed pain response, and no positive nerve root tests. In addition, the pain or functional disturbances in relation to PGP must be reproducible in specific clinical tests.<sup>11</sup>

Another hypothesis proposed that PGP may be due to increased mobility of the SIJ. However, roentgen stereophotogrammetry has shown that the degree of SIJ mobility was similar in patients with SIJ pain. A recent review pointed out that women with pregnancy-related lumbopelvic pain exhibited larger motions in the pubic symphysis during pregnancy and  $\leq 3$  weeks postpartum than women without lumbopelvic pain. However, the results should be interpreted with caution due to the large overlap between women with and without pregnancy-related lumbopelvic pain. The increased motion did not remain at 3 weeks after delivery.<sup>12</sup>

## CONCLUSION

Authors found that pregnancy related pelvic girdle pain along with low back pain is very common.

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