

Prevalence of Restless Leg Syndrome among Pregnant Women in Lahore City

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Abstract:

Restless Legs Syndrome (RLS) is a neurosensory issue that ordinarily starts at night and regularly keeps a man from nodding off. It has been related with press insufficiency pallor and dopaminergic pathways. Its impact on rest and disposition state and investigate the part of folic acid and iron in the declaration of RLS, particularly amid the third trimester when the disorder is generally upsetting.

Methods:

It was a cross sectional study. Sample size was 1000 pregnant females. Non-probability convenient sampling technique used to collect data, from Public Hospitals of Lahore. Data were analyzed through SPSS version 21.0.

Results:

The results showed that prevalence of RLS was (25.4%) among pregnant women. Women with RLS showed (96.4%) feelings of legs get better when they move their legs. RLS feelings were mainly occurring when they were sitting or lying in resting conditions. RLS was most common in third trimester (75%) as compared to other trimesters.

Conclusions:

The prevalence of the RLS was approximately twenty five percent in the pregnant females. The symptoms were severe during second and third trimester of pregnancy most probably with resting condition.

Keywords: Prevalence, restless leg syndrome, pregnancy.

Introduction:

Restless Legs Syndrome (RLS) has a neurosensory issue which normally starts at night and

regularly keeps a man from nodding off. It has been related with press lack pallor and dopaminergic pathways.¹ It's a neurological issue with essential deferral in finding. Early finding was required on the justification that vital effect on rest effectiveness and personal satisfaction, and change with treatment, exclusively dopaminergic drugs.² RLS was a critical supporter of poor rest quality, daytime sluggishness, and poor daytime work, all normal and frequently weakening conditions in pregnancy. Obstetric human services suppliers ought to know about these affiliations and screen females for RLS.³ RLS occurred two or three times more in pregnant women.⁴ Many risk factors Age, BMI, folic acid, iron supplements, ferritin and hemoglobin level, and multiple pregnancies play important role in development of RLS. Number of pregnancies was also affected by iron.⁵⁻⁷ lower hemoglobin levels and supplementation shortfalls of iron and vitamins were found to be the hazard factors for eager legs disorder in pregnancy.⁸ RLS was also associated with sleep barrier which cause bad affects at pregnancy that rates of Cesarean sections among these women high; weight gaining during pregnancy also can cause RLS.^{5,7} It stated that increase estradiol, increased prolactin and increased progesterone during pregnancy may motivate RLS.^{8,9} In pregnancy level of estrogen, prolactin, and progesterone increase mainly in the 3rd trimester.¹⁰ Pregnancy can make ladies create RLS; it is not affirm that all pregnant ladies create RLS. It was noticed that hemoglobin diminishes in pregnancy however RLS was not consolidated with diminish hemoglobin and lack of vitamin B12, folic corrosive have been

available in joints with RLS.¹¹ RLS first time showed its symptoms during pregnancy so it can be stated that RLS is generated by pregnancy. Pregnancy did not enhance RLS, but RLS has some concern with pregnancy and as the gestational age increases chances of RLS also increases.^{5, 12, 13} RLS has also been found to be combined with depression in pregnant women.¹⁴ RLS was also associated with sleep hindrance which cause bad affects at pregnancy that rates of cesarean sections among these women high.^{5,7} weight gains during pregnancy so it can also cause RLS.⁵

Vahdat *et al.*, interviewed 443 pregnant females within two weeks of deliveries and found RLS occurred more in 3rd trimester. Moderately severe cases were 75% reported and RLS (87%) had it during third trimester.⁷ In 2015 Shang X *et al.*, studied to identify the prevalence and clinical correlates and severity of restless legs syndrome (RLS) among pregnant women in mainland China. This cross-sectional study enrolled 1584 women (18–40 years old) who came to a prenatal outpatient clinic to consult an obstetrician. Pregnant women were studied in each trimester, and assessments included interviews about RLS symptoms and related questions. RLS severity in the third trimester was more severe when compared with the first and second trimesters. Sleep disorders occurred more frequently in the third trimester.¹⁵ In 2018 Habib S *et al.*, checked prevalence of restless leg syndrome among pregnant females, through an observational study. 370 pregnant females were selected for the study from different private and Govt. hospitals of Karachi. Research confirmed that there was a high prevalence of RLS in third trimester there is less awareness on RLS in females and in general population and the medical professionals. Restless leg syndrome was high in third trimester rather than second or first trimester. The exact cause of RLS is unknown. The factors include dietary factors, hormonal factors, physiological changes and genetic factor during pregnancy.¹⁶

In 2018 a study was conducted by Khan M *et al.*, about restless legs syndrome (RLS) among pregnant women. The main purpose of this study was to estimate the extent of the prevalence of RLS and identify both the associated factors and the associated risk factors among pregnant Saudi women. The total number of participants enrolled was 517, and the mean age was 30.11 ± 5.42 years. The prevalence of RLS was 21.3% (110/517) (95% confidence interval [CI]: 17.83%-25.06%). RLS symptoms were more common among women in the third trimester (24.1%) compared to the second trimester (14.3%) and first trimester (13.6%), $P = 0.043$.¹⁷

The study was conducted for the awareness among pregnant women that they should care about their health and diet. Iron, folic acid, Vitamin B12, vitamin D and many important vitamin deficiencies cause restless leg syndrome because they cause discomfort feeling which can disturb their mood and hinder their daily activities of their life and such pregnant women have to undergone caesarian. RLS was also called sleep disorder so it plays important role in mood swings and depression which are major cause of caesarian among pregnant so we can avoid caesarian rates among pregnant.

Methods:

A cross sectional study was conducted with a questionnaire. Part one of the questionnaire was about the demographic data which includes the age, gender and nature of work or profession admission of hospital. Part two was about prevalence of restless leg syndrome in pregnancy related. Sample size for the study calculated was 1000. Pregnant women with age between 18-45 years were included. Unwilling women, pregnant women with trauma, pregnant women with fracture, pregnant women with tumors and pregnant women with any other pathological diseases were excluded. Data were collected from The University of Lahore Teaching Hospital, Sir Ganga Ram Hospital, Gosh-e-shifa Hospital, Lady

Wallington Hospital, Lady Aitcheson Hospital. Collected data were entered and analyzed by SPSS version 21.0.

Results:

The mean \pm S.D of age was 26.54 ± 5.43 . Out of 1000 respondents minimum age of pregnant ladies were 20 years and maximum age was 40 years old.

254 females out of 1000 had RLS which indicate that the prevalence of RLS was 25% in pregnant ladies as shown in Table 1.

	Frequency	Percent
Yes	254	25.4
No	746	74.6
Total	1000	100.0

Table 1: Prevalence of uncomfortable feelings(RLS)

According to Figure 1, 76 pregnant ladies were belonging to first trimester, 232 were belonging to 2nd and 692 were belonging to 3rd trimester

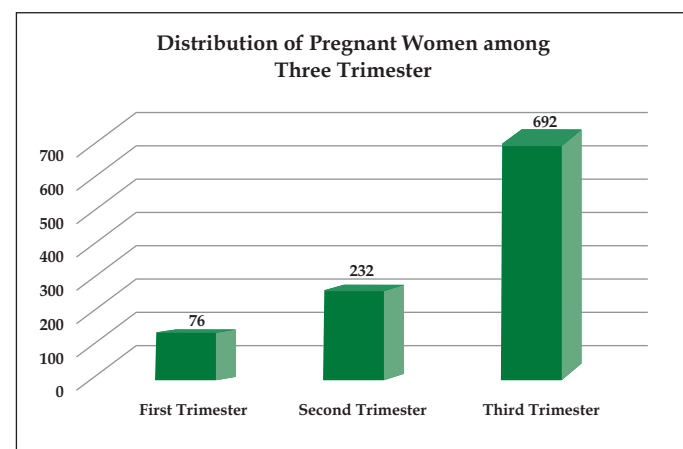


Figure 1: Distribution of pregnant ladies among three trimesters

On moving themselves, 246 (96.8%) were feeling better and 8(3.6%) were not feeling better after moving, out of 254 pregnant women having RLS, as shown in Table 2.

	Frequency	Percent
Yes	246	96.8
No	8	3.6
Total	254	100.0

Table 2: Frequency distribution of feeling get better when keep moving

62 pregnant ladies were having mild RLS, 100 were having moderate, 82 were having severe while only 10 were having were severe RLS, as shown in Figure 2.

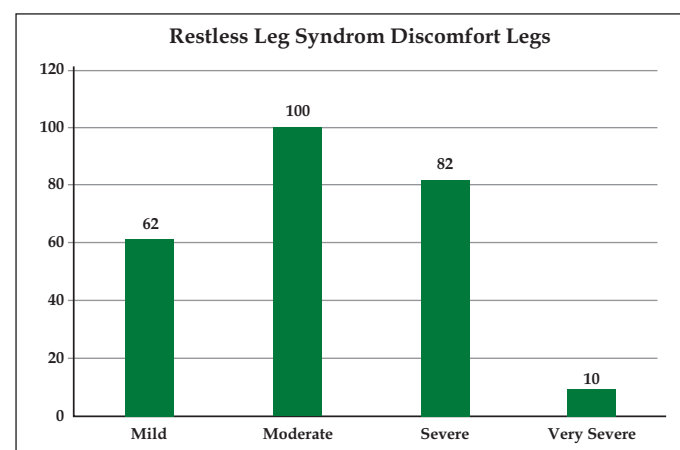


Figure 2: Frequency distribution of RLS discomfort in pregnant

Discussion:

A study conducted by Sikandar R. in July 2005 only study conducted in The Aga Khan University Hospital of Pakistan. Eighty-one of 271 (30%) talked with ladies satisfied the indicative criteria of RLS. Recent study conducted in 2017 and revealed 25.4% prevalence of RLS in pregnant women of Lahore city. A research conducted by Manconi et al, their research stated (9.9%) occur RLS before pregnancy and then incidence after pregnancy that was (16.7%). Prevalence of RLS increased in third trimester of pregnancy. Recent study also showed RLS prevalence was seen highest in 3rd trimester of Pregnancy.¹⁰ Recent study conducted in 2017 in Lahore city revealed 25.4%

RLS prevalence, highest in 3rd trimester and moderately affect Pregnant. In 2013 Vahdat et al, took Face to face interview of 443 pregnant and reported (75%) had moderately severe RLS (87%) had it during third trimester. Current studies revealed that RLS discomfort pregnant women moderately (100) and severely (82).⁷ Prevalence of RLS during pregnancy, contrast its effect on sleep and mood state, and explore the role of folate and iron in the expression of RLS, specifically during the third trimester when the syndrome is most distressing. The prevalence increased from 0 during preconception to 23% ($n = 7$) during the third trimester of pregnancy. Only 1 subject continued to experience RLS after delivery. Compared with those without complaints of restless legs, those with restless legs had low serum ferritin at preconception and significantly lower folate levels during preconception and at each trimester. In addition, time to sleep onset was significantly delayed and depressed mood was significantly higher in the RLS group. Rather than indicators of iron deficiency anemia (serum ferritin, serum iron, and hemoglobin) or pernicious anemia (vitamin B₁₂), it was reduced serum folate level that was associated with RLS in this sample of pregnant women.¹⁸ The prevalence and severity of RLS increase with age.¹⁹

Conclusions:

Restless Legs Syndrome (RLS), was a sensorimotor disorder composed of an urge to move, with or without associated discomfort that occurs with inactivity and improves with movement. RLS affected up to one-third of pregnant women peak in the third trimester. Restless legs syndrome (RLS) is major causes of sleep disturbance among pregnant women. The study was collected from hospitals of Lahore city, the prevalence of RLS was 25.4% in pregnant women and its prevalence was highest in 3rd trimester of pregnancy. RLS discomforted mostly moderately to women.

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