

Role Of Yoga For Better Outcome Of Pregnancy

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Abstract : Introduction:The present study was undertaken to document if Yoga provides solution for many pregnancy induced problems, antenataly, during labour, and puerperium. Method: Group of 50 women taking antenatal care were included in the study, a questionnaire was designed to assess the effect of regular Yoga exercises, on the mode of labour and outcome. Results: Regular yoga exercises and follow up had a positive impact on results regarding outcome improvement and reduced complication rate. Conclusion: Regular yoga exercises gives an opportunity to create a world for the baby that is healthy and peace full by coordinating movement, breath and awareness, addresses health and wellbeing on several levels: physical, emotional, psychological and spiritual. Because of its many benefits, yoga is becoming increasingly accepted everywhere as part of self-care during pregnancy and preparation for childbirth and motherhood [Tejwani N et al NJIRM 2013; 4(4) : 12-15]

Key Words: Yoga; Pregnancy outcome; Yoga and labour.

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Introduction: Motherhood the sweetest dreams of all women, is, as rose brings thorns with it, so does it bring the agony of the problems of pregnancy and the distressing labour pains and it becomes a night terror for some women, but for many women normal labour may be easy and trouble free, provided a rational approach is made from the beginning of the pregnancy. Ante natal classes, sympathetic care and encouraging environment during labour pain reduce the need for analgesia. Drugs have an important part to play in the relief of pain in labour, but it must not be supposed that they are of greater importance than proper preparation and training for child birth. Yoga may be the solution for many pregnancy induced problems and easy and successful labour. Mental and Physical preparation of the women is necessary during ante natal period. This can be achieved through different yogic techniques, such as asanas for stretching, backward, sideward bending, torsion, extremities stretching, and relaxation. Yogic Pranayams (Breathing practices), Dhyana (concentration practices) and recreation can help to reduce the stress experienced during pregnancy. Stress may cause many problems like pregnancy induced hypertension (PIH), intrauterine growth retardation (IUGR), oligo hydramnios, placental insufficiency etc.

Material and Methods: Group of 50 women taking ante natal care under me were taken in the study, a questionnaire was designed to assess the effect of regular Yoga exercises, follow up, medicines on the mode of labour complication and outcome of labour.

36 women continued with regular Yoga exercises and formed the study group while 14 women discontinued Yoga exercises after a period of time and formed the controlled group.

Inclusion criteria: subject willing to do yoga exercises regularly, who would be available for follow up, Subject who had uncomplicated 1st trimester

Exclusion criteria: Who were unavailable for follow up, Subject who had complication in the course of pregnancy, the training and motivation was done in a phased manner.

Care Techniques applied (Yoga Exercises)

A. Pre Natal Asanas

Tadasana: upward stretching of vertebral column

Matsyasana: Muscles of the lower limb are stretched, while getting in to asans Hip Abductors, Flexors and Medial Rotators, Knee Flexors, Shoulders Joint Flexors and Elbow Flexors are exercised.

Paryankasana: Extensors of Leg, Hamstring and Quadriceps are exercised; Medial Rotators of hip are stretched against huge resistance. While Ankle plantar Flexors, Knee Flexors, Hip Extensors and Elbow Flexors are exercised

Ustrasana: back ward bending asana

Vakrasana: Sitting and lying - Lateral Rotators of the Vertebral Column and Flexors of the Shoulder joint are exercised. Isometric contraction of the anterior abdominal wall muscles

Hastapadangusthasana: same side and front Rectus, Femorials, Sartorius, Elbow Extensors, Wrist Extensors and Finger and Thumb Flexors are exercised. Hamstrings and Gluteus Maximus are stretched. Upper limb carries the weight of the lower limb to variable extent. Body weight transmitted by one leg and thus all postural muscle contract, it improves the range of movement of the hip. Coordination of the muscular activity occurs.

Bhadrasana: Abductors, Flexors and Medial Rotators of the Hip are exercised. While getting into the Asan Knee Flexors, Finger Flexors and Abductors, Flexors, Lateral Rotators of Shoulder and Scapula Protractors are also exercised. Sartorius are stretched, Abductors and Adductors of Hip are also stretched.

Yoga Mudra: Extensors of vertebral column are stretched, hip abductors, Flexors and Medial Rotators and Knee Flexors along with Shoulders Girdle Retractors are exercised. There is movement towards gravity. Yoga Mudra in pregnancy bending sideward only is done.

Pranayams: Anulom Vilom, Yogendra Pranayam,

Relaxation: Makarasan, Shavasana, Drirhasan,

Concentration: Nishpan Bhav with Music

- B. Post Natal Asanas: same as pre-natal asana and pawanmuktasana, yashtikasana for reducing abdominal obesity and flabbiness for three months post delivery. Post Natal Asanas: same as pre-natal asana and pawanmuktasana, yashtikasana for reducing abdominal obesity and flabbiness for three months post delivery.

Results: Pregnancy outcome explained in (table 1). Total 50 subjects included in this study and divided in two groups, regular yoga exercises group (study group, n=36), discontinued yoga exercises group (control group, n=14). In study group the cesarean section rate was 16.67%, normal delivery rate was 77.78% and forceps delivery rate was 5.55%, whereas in the control group, cesarean

section rate was 42.86% and forceps delivery rate was 14.28%.

Antenatal complications (Table 2) in the study group, IUGR was in 2.78%, PIH in 2.78% and no cases of preterm labour; whereas in the control group 7.14% had preterm labour, 7.14% had IUGR and 21.43% had PIH

Table 1: Pregnancy Outcome

	regular yoga exercises (study group) n= 36	discontinued yoga exercises (control group) n=14
Cesarean Section	6 (16.67%)	6 (42.86%)
Normal Delivery	28 (77.78%)	6 (42.86%)
Forceps delivery	2 (5.55%)	2 (14.28%)

Table 2: Antenatal complications

	Regular yoga exercises (study group) n= 36	Discontinued yoga exercises (control group)n=14
Preterm labour	Nil	1 (7.14%)
IUGR	1 (2.78%)	1 (7.14%)
PIH	1 (2.78%)	3 (21.43%)
Post maturity	1 (2.78%)	Nil

Intra natal complications (Table 3): Intra natal complications in the study group PROM occurred in 2.78% and fetal distress in 2.78% cases, whereas in the control group PROM was in 14.28%, DTA in 7.14%, fetal distress in 14.28%, maternal distress in 7.14%, prolonged labour in 7.14% and PPH in 14.28%

Table 3: Intra Natal complications

	Regular yoga exercises (study group) n= 36	Discontinued yoga exercises (control group)n=14
PROM	1 (2.78%)	2 (14.28%)
DTA	Nil	1 (7.14%)
Fetal Distress	1 (2.78%)	2 (14.28%)
Maternal Distress	Nil	1 (7.14%)
Prolonged labour	Nil	1 (7.14%)
PPH	Nil	1 (Traumatic) (7.14%) 1 (Atonic)

Post partum complication (Table 4): Post partum complication in the study group and control group compared on the basis of urinary retention, subinvolution, psychosis, impaired lactation and post natal weight gain. In control group 1 subject (7.14 %) had urinary retention, 1 subject (7.14 %) had subinvolution, 2 subjects (14.28 %) had psychosis, 2 subjects (14.28 %) had impaired lactation, 4 subjects (28.57 %) had Post natal weight gain (>10 kg).

Table 4 : Post partum complication

	Regular yoga exercises (study group) n= 36	Discontinued yoga exercises (control group)n=14
Urinary retention or incontinence	Nil	1 (7.14%)
Subinvolution	Nil	1 (7.14%)
Psychosis	Nil	2 (14.28%)
Impaired lactation	1 (2.78%)	2 (14.28%)
Post natal weight gain (>10 kg)	1 (2.78%)	4 (28.57%)
Urinary retention or incontinence	Nil	1 (7.14%)

In pregnancy outcome it was noted that the number of interventional deliveries was tremendously reduced in the regular exercise group. The antenatal complication was reduced to 1/3rd in the regular exercise group and distressing intra natal complications like prolonged labour, PPH, Maternal distress and DTA was reduced to nil, while PROM and foetal distress were minimum. In the group which did not do regular exercise post natal recovery was delayed, lactation was impaired and post- natal weight gain & its retention.

Discussion: The scientific exercises of yoga are based on harmonic non violent and non-fatiguing exercises. Through yoga the blood supply to any part of the body is regulated as well as the prolonged deep rhythmic breathing associated with each movement of Yoga, Asanas & Pranayam helps in supply of Oxygen richer blood to different parts of the body. All the systems of body including Endocrine glands derive additional advantage of Oxygen richer blood and increased blood supply.

So that cumulative effect of improved cellular health is reflected on behavioral, mental and personality changes. By yoga training vasomotor adjustment reduce the danger of fatigue to the minimum. The rate of metabolism is ideally coordinated. Regular Pelvic muscle exercise by asanas like Bhadra asan and Paryanka asan increase the tone of muscles, preventing prolonged labour and maternal distress. Increased pelvic tissue flexibility help in timely engagement of head, easy cervical dilatation, progress of labour resulting in reducing the chances of maternal distress and ppH (which is due to atonicity and traumatic delivery). Increase supply of O₂ rich blood reduces the chances of placental insufficiency so leading in reduction of incidence of IUGR. The peace imparted by breathing exercises of Yoga reduces the mental stress and help in relaxation, so decreasing the chances of PIH and post Natal recovery.

Conclusion: Yoga Exercises is known to have profound effect on the body. In pregnancy the yoga exercises increase elasticity of pelvic tissue and ligament which helps in the course of labour. The mental peace and psychological mind make up reduces the maternal distress during labour as well as post natal psychosis. This in turn reduces intranatal, antenatal and post natal complication rate. This helps in smooth and fast resumption of activities postnally thus preventing postnatal weight gain. The practice of regular yoga exercises gives the opportunity to create a world (human body) for the baby that is healthy and peace full. Yoga coordinates movement, breath and awareness. It addresses health and wellbeing on several levels: physical, emotional, psychological and spiritual. Because of its many benefits and the pleasure derived from its practice, the time-honored art of yoga exercises is becoming increasingly accepted everywhere as part of self-care during pregnancy and preparation for childbirth and motherhood.

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