



A Review of ancient and contemporary maternal positions during second stage of labour.

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ABSTRACT

Amongst three stages of labour, Second stage of labour is the most crucial stage for mother, fetus & obstetricians. As there are many maternal positions are in practiced since ages, there is no single maternal position is said to be ideal. Maternal position plays a dramatic role in Power, Passage and Passenger making labour easier. As Our ancient science has also mentioned different positions, here is an attempt review maternal Position from both ancient and modern sciences and compare with their positive or negative outcome.

Keywords: *maternal positions, ancient and modern sciences, Stage of labour.*

INTRODUCTION

Labour is said to be second birth of woman. Normal labour comprises mainly three stages. Onset of labour pains to full dilatation of cervix is known to be first stage while full dilatation of cervix to expulsion of fetus said to be second stage of labour. Expulsion of afterbirth i.e. placenta and membrane completes the third stage of labour. Amongst these, Second Stage of labour is more stressful for mother, fetus and medical personnel conducting the delivery i.e. obstetricians & midwives. Various maternal positions are in practices to increase, maternal and neonatal outcome each having their own risks and benefits. Prolonged duration of second stage of labour leads to perineal tear. post partum hemorrhage, Operative delivery, intra uterine infection leading to puerperal sepsis and also decreasing neonatal outcome by birth asphyxia, stress, intracranial hemorrhage and infection. Certain maternal positions during second stage of labour have benefits of better maternal & neonatal outcome, making a positive birth experience. Some maternal positions if given during unfavorable condition may commence in perineal trauma, obstructed labor or post partum urinary and anal incontinence.

In future such large perineal tear may develop into vesicovaginal fistulae, rectovaginal fistulae, complete perineal tear and so on.

Here is an attempt to review on different maternal positions described in ancient and contemporary science and discuss and compare with their own benefits and risks.

AIMS AND OBJECTIVES

1. To review of different maternal position during second stage of labour described by ancient and modern Sciences
2. To compare between different maternal positions for increasing obstetric outcome.

MATERIALS & METHODS

Ancient literature from Vedic period, Ayurved & contemporary science explored. Research articles relevant to the subject are reviewed

Ancient Science-

Lajja Gauri(1) –

Lajja gauri is lotus headed Hindu goddess associated with abundance, fertility and sexuality. She is shown in birthing posture but without outwards signs of pregnancy. Her fertility aspect is emphasized by symbolic representation of genitals, Yoni or the womb as blooming lotus flower denoting blooming- youth. She is sitting in squatting position with legs open as in during childbirth.

Ayurved(2,3)-

Acharya charaka and Acharya vagbhata advocates supine position for expulsion of fetus during second stage of labour

Earlier Period.

- In earlier period the commonest position has been upright or vertical position.
- Francois Mauiceau ,a french obstetrician introduced semi recumbent position for easy process in applying forceps
- By the time advances this semi recumbent position evolved to recumbent or lithotomy position
- In 1996, WHO recommended upright. position and. stated women should choose the maternal position according to their preferences

Research Articles (4)

Maternal positions can be classified as

1) Upright position

2) Neutral position.

I) Upright position

The line connecting centers of women's third and fifth lumbar vertebrae is more nearly vertical

- i. Sitting
- ii. Squatting.
- iii. kneeling
- iv. Standing

II) Neutral position.

The line connecting centers of woman's third and fifth lumbar vertebrae is more nearly horizontal

- i. Lithotomy
- ii. Supine.
- iii. Lateral

I. Upright positions

1) Sitting Position.

i) Semi Sitting

woman sits with her trunk at an angle greater than 45° to the bed.

ii) Sitting upright (More common in western countries)

Woman Sits straight up on a bed, Chair or stool

2) Kneeling position

It vary from upright kneeling to all four's position

In this, woman kneels, leans forward and support herself on either the palms of her hands or her fist.

3) Squatting position

Woman's weight rests mainly on her feet, but her knees are markedly bent and again, she may lean or pull on some support

Difficult for pregnant women to maintain squatting for a long time. The advent of supporting tools may solve this problem.

II) Neutral Position

i) Lithotomy Position

(Common in Asian countries)

The woman rest on back, her legs are neither bent with her feet flat on the surface, placed in stirrups, straight leg support or held by attendant.

Advantages

- To monitor progress of labour
- To implement hands an maneuvers when needed.

ii) Supine Position

(Common in Asian Countries)

The woman lies flat on her back with her trunk slightly raised with $<45^\circ$ to the horizontal, her legs outstraight, bent with her feet flat on bend, in the leg rests or drawn up and back toward her shoulders. Advantages

15° left lateral tilt avoid avortocaval compression & facilitate pushing efforts.

iii) Lateral Positions.

1) Pure side lying

Woman lies on her side with both hips and knees flexed and a pillow between her legs or with upper legs raised and supported

2) Exaggerated. Sims position (Common in France)

Woman lies on her side with lower arm behind (or in front of) her trunk, her lower leg extended and her upper hip and knee flexed 90° or more. She rolls partly toward her front.

Advantages

- Easy
- Reproducible
- Comfortable
- In Epidural Analgesia.

No.	Characteristics	Maternal position
1.	Accelerating progress of labour	Squatting Sitting
2.	Alleviating maternal pain	Squatting Sitting

3.	More maternal pain in	Supine lithotomy
4.	Less Perineal trauma	Upright Lateral Kneeling
5.	More Perineal trauma	Lithotomy Supine, Squatting in multipara
6.	More Blood loss	Upright
7.	Better Neonatal outcome	Upright lateral
8.	More neonatal compromise	Supine Lithotomy
9.	Shoulder Dystocia.	less in All four's position (ACOG)
10.	Occipito Posterior-	Lateral position may serve as non medical intervention to enhance rotation of occipito posterior fetus
11.	Epidural Analgesia	Modified Sims position. Supine Lithotomy
12.	Instrumental delivery	Lithotomy

CONCLUSION

As no evidence exist to support the ideal maternal position during Second stage of labour, Each position has respective risk and benefits. As upright positions has lesser morbidity outcome but close monitoring is must in upright position to avoid birth injuries. As this position tends to more blood loss, the necessary management tools must be prepared for post partum hemorrhage.

The supine position described in Ayurved literature have less complications but taking longer duration for progress of labour. The squatting & kneeling helps in shortening duration of Second Stage labour.

Thus Each position has respective risk and benefits,So the maternal position should be adopted as per case needed.

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