



ORIGINAL RESEARCH PAPER

Nursing

A COMPARATIVE STUDY TO ASSESS THE RELATIONSHIP OF PLACENTAL WEIGHT AND BIRTH WEIGHT AMONG ANEMIC AND NON- ANEMIC MOTHER ADMITED IN SVBCH, SILVASSA

KEY WORDS: Placental weight, Birth weight, Anemic mother and Non – anemic mother

Ms. Ahir Vilas Kalubhai

M.Sc.Nursing student

Ms. Mehzbeen Navsariwala*

Nursing Tutor,SVBCH*Corresponding Author

ABSTRACT

The placenta is a complex multifunctional organ that maintains pregnancy and promotes normal fetal development. If the placenta has got affected due to anemia it adversely affects for the growth of the fetus. The aim of the study was to compare and assess the relationship of placental weight and birth weight among anaemic and non- anaemic mother. Quantitative Non – experimental (Correlational Comparative Descriptive Design) was used to conduct the study. Non probability purposive sampling technique. Was used to select 200 mother who delivered in Shri Vinoba Bhav Civil Hospital, Silvassa. In this study results negative correlation between placental weight and birth weight of baby group of anemic mothers ($r = -0.7802$) and non-anemic mother group there was a positive relation between placental weight and birth weight ($r = 0.8507$). Study result concludes that in anemic mother group placental weight increase more than the non- anemic mother group but in nonanemic mother group birth weight is more increase compare to non-anemic mother group. In anemic mother group if the placental weight increases simultaneously the birth weight decrease but in non- anemic mother group placental weight was decrease and birth weight was increase or vice – versa.

INTRODUCTION

The placenta is a complex multifunctional organ that maintains pregnancy and promotes normal fetal development. Placenta plays an active role of fetal programming during intrauterine life and placental maturity, with fully mature villous tree and increased capillarization. A good fetal outcome depends on mothers' health and her diet during antenatal period. Women have distinct nutritional requirements throughout their life – especially before and during pregnancy and while breastfeeding, when nutritional vulnerability is greatest. Maternal nutrition during pregnancy has a pivotal role in the regulation of placental-fetal development and thereby affects the lifelong health and productivity of offspring. Maternal anemia in the gestational period may also be related to obstetric complications such as postpartum hemorrhage, operative delivery and placental abnormalities iron deficiency is the most common deficiency state in the world. Placental volume has been taken as an indicator of placental function.48 If the placenta has got affected due to anemia it adversely affects for the growth of the fetus. Anemia is a pathological condition which leads to loss of placental weight and poor perinatal outcome and it is major public health problem throughout the world.

METHODOLOGY:

Research approach: The research approach adopted for this study is non – experimental approach.

Research design: Correlational comparative descriptive design.

BIRTH WEIGHT Research setting: Study was conducted at Shri Vinoba Bhav Civil Hospital, Silvassa, DNH.

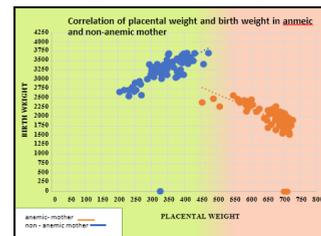
Sample: The sample comprised of 200 mother (100 anemic mother and 100 non-anemic mother) in Shri Vinoba Bhav Civil Hospital, Silvassa, Dadra & Nagar Haveli in the time framework of study and fulfilling sampling criteria.

Description of tool:

Structured knowledge questionnaires tools consist of demographic data and biophysiological profile, observation tool consist for placental examination standardized tool use in that includes general examination of placenta, maternal and fetal surface of placenta and umbilical cord and assessing birth weight includes APGAR score.

RESULTS:

Study result shows there is statistically difference in birth weight in both groups. In anemic mother group and non – anemic mother group there was a significance difference between placental weight t test value 40.42331 (p value - 0.00001) and tabulated value 1.6526. SD in placental weight in anemic mother group and non- anemic mother group 55.30775 ± 56.56024 and mean value 673.25 ± 351.86 . In this study negative correlation between placental weight and birth weight of baby group of anemic mothers ($r X = -0.7802$) and non-anemic mother group there was a positive relation between placental weight and birth weight ($r = 0.8507$).



DISCUSSION:

Anemic mother group and non – anemic mother group there was a significance difference between birth weight t test value 34.76684 (p value - 0.00001) and tabulated value 1.6526. SD (244.7794 289.4041) of birth weight in anemic mother group and non- anemic mother group. In this study negative correlation ($r = - 0.780270936$) between placental weight and birth weight in anemic mothers and non-anemic mother group there was a positive relation ($r = 0.850785058$) between placental weight and birth weight.

CONCLUSION:

In anemic mother group placental weight increase more than the non- anemic mother group but in nonanemic mother group birth weight is more increase compare to non-anemic mother group.

REFERENCES:

- ColinPSibley ,PaulBrownbill,MarkDilworth,JocelynGlazier. R e v i e w : Adaptation in placental nutrient supply to meet fetal growth demand: Implications for programming. Placenta 2010; 31:70–74. DOI: 10.1016/j.placenta.2009.12.020 Availablefrom: <https://www.sciencedirect.com/journal/placenta/vol/31/suppl/S>
- Fatima Eissa, Suher Awad, Reham Ahmed, and Awad-Elkareem Abass. The Correlation Between Maternal Hemoglobin Level and Neonatal Birth Weight. International Journal of Multidisciplinary and Current Research. 2017;

5 (may / June 2017) : 506 - 509 . Available from :

https://www.researchgate.net/publication/317239660_The_Correlation_Between_Maternal_Hemoglobin_Level_and_Neonatal_Birth_Weight

3. Jaya M, Sujata T. A study assesses the effectiveness of nutritional intervention among women anemia in selected village Tiruvallur District. *Nightingale Nursing Times*. 2008; 4(4):9-11
4. Louiza Belkacemi, Michael Nelson, Mina Desai, Michael Ross. Maternal undernutrition Influences Placental-fetal development. *Journal Biology Of Reproduction*. 2010; 83(3):325-331. Available from: <https://academic.oup.com/biolreprod/article/83/3/325/2530073>
5. Susan Abraham, John Yardley, Tsung Teh Wu. Erosive injury to the upper gastrointestinal tract in patients receiving iron medication: an underrecognized entity. *American Journal of Surgical Pathology*. 1999; 23(10):1241-1247. Available from: <https://doi.org/10.1097/0000478-199910000-00009>