

# Effect of Oxytocin Augmentation on Neonatal Bilirubin Levels : A Case Control Study

Jitendra Shukla<sup>1</sup>, Shubhra Buch<sup>2</sup>, Piyusha Chandrayan<sup>3</sup>

<sup>1</sup>Assistant Professor, <sup>2</sup>2nd Year Resident, Department of Obstetrics and Gynecology, SBKS MI & amp; RC,

<sup>3</sup>Associate Professor, Department of Obstetrics and Gynecology, SBKS MI & RC

## Abstract

**Introduction** - Hyperbilirubinemia is a commonly encountered problem in both term as well as preterm infants and is a source of concern to neonatologists.

**Aim**- to determine the relationship between the usage of oxytocin during labour and the development of neonatal hyperbilirubinemia.

**Methodology**- a case controlled study was conducted. 50 patients were given intravenous oxytocin for the augmentation of their labour and 50 patients delivered spontaneously without the usage of oxytocin during their labour. The neonates born to both these categories of patients were studied for their bilirubin levels of day 2 of life.

**Results**- hyperbilirubinemia developed in 34% of the neonates whose mothers were given oxytocin for augmentation of labour and hyperbilirubinemia developed in only 14% of the neonates whose mothers delivered spontaneously without the usage of oxytocin.

**Conclusion**- A positive relationship between the usage of oxytocin during labour and development of neonatal hyperbilirubinemia has been established.

**Keywords** – oxytocin, neonatal hyperbilirubinemia, augmentation of labour

## Introduction

Hyperbilirubinemia is the most common problem encountered in both term as well as preterm infants and is a source of concern to the neonatologists<sup>[1,2,3]</sup>. It is often a cause of readmissions as well as late discharges in newborns<sup>[3,4]</sup>. The common cause of neonatal hyperbilirubinemia are fetomaternal blood

group incompatibility, prematurity and a previously affected sibling<sup>[5]</sup>. There has recently been a rise in the number of newborns with neonatal jaundice and it has been postulated that the use of oxytocin during labour might be a probable cause. Oxytocin is often used intravenously to induce or augment the labour. Some studies have shown a positive relationship between the usage of oxytocin during labour and the development of neonatal jaundice<sup>[6]</sup>. This study aims at determining the relationship between use of oxytocin during labour and the development of hyperbilirubinemia in the neonates.

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### Corresponding Author:

**Dr. Piyusha Chandrayan:**

Associate Professor, Department of Obstetrics and Gynecology, SBKS MI & RC

Email- piyusha011@gmail.com