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COMPARATIVE STUDY OF INDUCTION OF LABOUR USING DINOPROSTONE GEL VS EXPECTANT MANAGEMENT IN PRE-LABOUR RUPTURE OF MEMBRANE AT TERM

Obstetrics & Gynaecology

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ABSTRACT

Background – PROM remains an obstetrical emergency which has a significant impact on fetomaternal outcome.
Aim & Objective – This Study was undertaken to compare the efficacy & safety of Dinoprostone gel PGE2 as an agent for induction of labour with expectant management and to study fetomaternal outcome in both groups.
Material & Method – 100 women having PROM at term were randomized in a study group undergoing immediate induction with dinoprotone Gel and 100 women were kept in control group (Expectant management) & augumentation was done with oxytocin after improvement in Bishop score.
Observation & Result – Fetomaternal outcome was similar in both group but PROM to delivery interval was reduced in immediate induction group.
Conclusion – Dinoprostone Gel can be used for induction in cases of PROM at term to reduce induction delivery interval & PROM delivery interval with better fetomaternal outcome.

KEYWORDS

PROM, Dinoprostone Gel, induction, Expectant management.

INTRODUCTION –

Spontaneous rupture of membrane before the onset of labour is termed pre-labour rupture of membrane. In 10 % cases there is PROM at term. Presence of amniotic membrane acts as a deterrent for ascending infection from genital tract. In case of PROM this protective barrier is lost exposing mothers and fetus to pathogenic organism. Studies have shown that spontaneous labour sets in 12-24 hrs after rupture of membrane.

PGE2 Gel is an ideal prostaglandin agent that can be used for induction because of the safety profile and less risk of hyperstimulation.

This study was undertaken to evaluate and compare the safety and efficacy of dinoprostone gel compared to conservative management in cases of PROM at term.

MATERIAL & METHOD –

This Study was undertaken from January 2018 to Dec 2018 at labour room emergency of Nalanda Medical College &hospital, Patna.

100 Patients with PROM more than or equal to 37 weeks gestation with no other complication were taken in study group. 100 patients were taken as control.

Diagnosis of PROM was done by history& clinical examination. Bishop score was calculated in each & every case. Patients with previous cesarean, APH, APE, Twin pregnancy & other medical disorder were excluded from the study.

Group I – 100 Patients with PROM were induced using dinoprostone gel PGE2 and kept under fetal & maternal monitoring, if labour does not set after 6 hrs or if bishop score does not improve second dose of PGE2 gel was administered. If labour does not set in after 12hours, then these cases were labelled as failed induction. If labour sets in then oxytocin was used for augumentation of labour.

Group II – 100 patients with PROM were managed conservatively for 24 hrs. Improvement in bishop score occurred spontaneously after 12-24hrs in 80% of cases, then oxytocin was added for further augmentation of labour. Injectable antibiotics amoxicillin was used in both groups.

Fetal and maternal monitoring was done to detect fetal distress or uterine hyper stimulation at the earliest.
The result is shown in tabulated form below –

Table -1 : Showing Age And Parity Distribution-

Distribution of age	Study	Control
18-24	60	55
25-35	40	45
Parity Distribution	**Study**	**Control**
0	70	68
1	18	20
>/= 2	12	12

Table -2 : Showing Bishops Score-

Bishop Score	Group A	Group B
>/= 6	20	26
< 6	80	74

Table-3: Showing FETO Maternal Outcome -

Labour outcome	Study	Control
Vaginal Birth	80	78
Cesarean	20	22
PROM to Delivery interval	18 hrs 20 mins ±3hrs	24 hrs 30 mins ±4 hrs 30 mins
Induction Delivery interval	9 hrs 30 mins ±3hrs	10 hrs 15 mins ±2 hrs 55 mins
NICU Admission	1	2
PPH	0	2

DISCUSSION –

70% of women in both study and control group were primigravida.

Age distribution was also similar in both study & control group.

Vaginal delivery occurred in almost 80% of patients in both group and cesarean rate was 20% in both group.

Induction delivery interval was comparable in both group 9hrs 30 mins ±3hrs in study group and 10 hrs 15 mins ± 2hrs 55 mins in control group.

PROM delivery interval was 18 hrs 20 mins ± 3hrs in study group while it was 24 hrs 30 mins ± 4 hrs 30 mins in control group.

Fetal outcome was similar in both group ,with NICU admission in 01 case in study & 02 cases of control group.

PPH Ocurred in none of the cases in study group where as it occurred in 02 case of control group.

Study conducted by smith CV 1994 found the application of gel resulted in favourable cervical score as found in our study.

In present study 92% needed single application of dinoprostone gel and only 4 cases required two doses.

This was comparable with study conducted by Seechamay 2006 C. Shankar Nath.

CONCLUSION –

As immediate induction with dinosprostone gel after PROM resulted in favourable fetomaternal outcome as well as resulted in short PROM delivery interval. Immediate induction can be used in cases of PROM for better fetomaternal outcome.

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