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A COMPARITIVE STUDY OF PGE2 GEL INTRA CERVICAL FOLEYS CATHATER AND MISOPROTOL PGE1 FOR CERVICAL RIPENING PREINDUCTION OF LABOUR

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ABSTRACT

AIM:- For bishop score depending on cervical status at the time of induction .

OBJECTIVE:- Cervical ripening in a effective way all the three methods were used that is pge2 gel, foleys cathater, Tab. misoprostol for cervical ripening for success full induction of labour.

STUDY DESIGN:- A randomised prospective study was conducted in Dept. of OBGYN NGMC kohalpur from Jan 2014 to Dec 2017. 300 pts at term with a bishop score 3 to 4 for various indications for induction were randomly allocated to recieve 100 pts for cervical foleys cathater 100 for pge2 gel and 100 for misoprostol pge-1 . After 6 hrs of all the factors in bishop score was analysed and augumented if required.stastical analysi swas done by chi square test and t test.

RESULT:- All the three groups were comparable with respect to maternal age, gestation age, indication of induction and Bishop's score 5.49+-1.82 and 5.56+-1.89 PGE2 gel, Foley's catheter and Tab. Misoprostol, respectively. However, Tab. Misoprostol required 50mcg in primae and 25mcg in multi gravidae. The same dosages were repeated after every 6 hours. However, there was no significant difference in the side effects except of Misoprostol. 37 Cesarean section were performed in Group A and 28 in Group B. However in Group C the rate of Cesarean section were 35. The induction to delivery interval was 15.2 +- 4.24 in Group A, 16.32+- 4.28 in Group B, 17.26+- 4.14 in Group C.

CONCLUSION:- This study shows that the two factors namely, PGE2 gel and Foley's catheter were equally effective except Tab. Misoprostol dosage three times maintenance dose were different.

KEYWORDS : PGE_2 , Foley's Catheter, Tab. Misoprostol, Cervical ripening.

INTRODUCTION

Cervical ripening refers to the process of preparing the cervix for induction of labor by promoting effacement and dilatation as measured by Bishop's score. The success of labor induction depends on the cerivcal status at the time of induction. It is generally predicted that the patients with a poor Bishop's score 3 to 4 have unacceptably higher rate of cesarean section, maternal fever, fetal asphyxia[1,2].To decrease the induction failure, cervical ripening by all the three methods is the answer.

The purpose of this study was to compare the efficacy of intra cervical Foley's catheter, PGE_2 gel and multiple dosage of Misoprostol as mentioned above.

MATERIAL AND METHODS

The study was conducted at NGMC Kolhapur Jan 2014 to Dec 2017. Ethical committee was taken in 2013. The study population (n=300) was a mixture of high and low risk population. For all the three methods of induction of labor were included in the study after written valid consent.

Inclusion criteria:- Both primae and multi, 37 weeks of pregnancy, Singleton pregnancy, Cephalic presentation, Bishop Score 3 to 4 & Intact membrane.

Exclusion criteria:- Absent membrane, APH, Mal-presentation, Multiple pregnancy, Medical disease like heart disease and renal failure.

The patients were randomly allocated to either of the groups. (Group A PGE_2 gel n=100, Group B Foley's catheter n=100, Group C Tab. Misoprostol n=100). The Bishop score was determined earlier, each patient was examined thoroughly, LMP was ascertained and correlated clinically.

Post induction Bishop's score was conducted by the same Doctor. Dose repetion of PGE_2 gel was considered if post induction Bishop score was < 6 . Reqiurement of augmentation of labor was assessed & implemented by other methods like Oxytocin administration & ARM(Acute Rupture of Membrane). The same method was also applied in Tab.Misoprostol Group C If despite of giving three dosage of Misoprostol.

Failure of induction was declred if patient falied to go in active phase of labor within 24 hrs od induction.

Student's *t* test and Chi square test were used to statistically compare the three groups. Differences with *P* with <0.05 were considered statically significant with confidence limit of 95%.

RESULT

Group A, B and C had 100 randomized patients, all these groups were compared with respect to maternal age, gestational age, pre induction Bishop's score and indication of induction. (Table 1)

In this present study improvement of Bishop's score Group A 5.49+-1.82 and Group B 5.56+-1.89. However, Tab. Misoprostol required 50mcg in primae and 25mcg in multi gravidae. The same dosages were repeated after every 6 hours.

Table 1 Demographic Profile

Variable	Group A (n=100)	Group B (n=100)	Group C (n=100)	P
Maternal age	22.27+-2.97	22.00 +-2.79	23.13 +- 2.99	0.079
Gestational age	38.7 +- 1.73	38.9+- 1.68	39.1 +- 1.89	0.13
Indication for induction PIH	40	33	31	
Post-datism	34	32	31	
Oligohydraminos	05	01	03	
IUGR	05	06	04	
IUFD	06	12	14	
Others	14	16	15	

DISCUSSION

The result of this study shows PGE2 gel and Foley's catheter is equally effective as compared to Tab. Misoprostol in pre-induction & cervical ripening. However, the comparison between the groups reveal that one method didn't confer a statically significant advantage over the other including Tab. Misoprostol interval dosages.

The need for Oxytocin induced augmentation of labor was 37% in Group A, 23% in Group B, 40% in Group C. The total cost of Foley's catheter and Tab. Misoprostol (3, 4).

CONCLUSION

In conclusion this study has shown that the preinduction cervical ripening, there is no difference between efficacy of intra cerivcal PGE_2 gel or intra cervical foley's catheter. However, Tab. Misoprostol has proven to be the better drug for induction of labor.

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