RESULTS

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This study was carried on 100 patients admitted to labor ward in Obstetrics and Gynecology Department of Benha Teaching Hospital and showed an abnormal progress of the active phase of labor.

They were subdivided into 2 groups: study group and control group. The study group received propranolol with oxytocin infusion while the control group received oxytocin infusion only.

The results of this study are shown in tables (1-7).

Table (1) shows the clinical characteristics of the study and control groups. Both are comparable as regards the mean age, gestational age, height, weight, pulse, blood pressure and parity with no statistically significant difference (P> 0.05).

Table (2) shows that the mean cervical dilatation and effacement at admission and the mean cervical dilatation at arrest among the study group was as follow: 4.2 ± 0.7 cm, 83.0 ± 4.8%, 6.1 ± 0.70 cm consequently while in the control group it was: 4.2 ± 0.6 cm, 84.0 ± 5.0%, 5.9 ± 0.40 cm consequently with no statistically significant difference between both groups (P > 0.05).

Table (3) shows that the mean duration of the interval between cervical dilatation at admission and at arrest was 3.6 ± 1.06 hours among the study group while it was 3.4 ± 1.13 hours among the control group with no statistically significant difference between both groups (P> 0.05).

The mean duration of the interval between drug intake (propranolol) and delivery (either vaginal delivery or by cesarean section) was 2.2 ± 1.02 hours among the study group while it was 3.7 ± 1.3 hours among the control group with statistically significant difference between both groups ($P < 0.05$).

Table (4) shows that the rate of cesarean section among the study group was 20% while in the control group it was 38% with statistically significant difference between both groups ($P < 0.05$).

Table (5) shows that the mean Apgar score at 1 minute and at 5 minutes among both the study and control groups was as follow: 8.2 ± 0.8, 9.5 ± 0.9, 7.8 ± 0.7, 9.5 ± 1.1 consequently with no statistically significant difference between both groups ($P > 0.05$). Also, the mean birth weight of the neonates of the study group was 3395.0 ± 265.8 gms while it was 3361.0 ± 300.8 gms of the control group with no statistically significant difference between both groups ($P > 0.05$).

Table (6) shows that the rate of neonatal admission to NICU was 4% among the study group while it was 6% among the control group with no statistically significant difference between both groups ($P > 0.05$).

Table (7) shows the different indications for admission to NICU between both the study and control groups with no statistically significant difference between both groups ($P > 0.05$).

Table (1): The clinical characteristics of the propranolol treated group and control group of dysfunctional labor.

Character	Study group (n = 50) Mean ± SD (range)	Control group (n = 50) Mean ± S.D (range)	t	P
Age (years)	22.83 ± 2.91 (18 – 29)	23.73 ± 2.91 (19-29)	1.20	0.75
Gestational age (Wk)	39.87 ± 0.51 (39.0 – 40.8)	39.98 ± 0.43 (39.2 – 40.6)	0.52	0.61
Parity 0 I	 n=43 (86%) n = 7 (14%)	 n =42 (84%) n = 8 (16%)	 - -	0.78
Height (cms)	161.0 ± 3.9 (155-170)	161.4 ± 3.2 (156-168)	0.44	0.67
Weight (kgm)	71.3 ± 3.2 (65-78)	72.1 ± 2.9 (68-77)	0.97	0.33
Blood pressure	121/72.7 ± 7.6/4.5 (110/70 – 140/80)	119.7/69.7 ± 7.3/4.9 (110/60-130/80)	2.1	0.23
Pulse	85.3 ± 3.3 (80-88)	84.3 ± 3.3 (80-88)	3.60	0.75

$P > 0.05$

Table (2): Cervical condition at admission and at arrest of both the propranolol treated group and control group of dysfunctional labor.

Cervical condition	Study group (n = 50) Mean ± SD (range)	Control group (n = 50) Mean ± S.D (range)	t	P
Dilatation at admission (cm)	4.2 ± 0.7 (3-5)	4.2 ± 0.6 (3-5)	0.07	0.95
Effacement at admission	83.0 ± 4.8 (80-90%)	84.0 ± 5.0 (80-90%)	0.53	0.60
Dilatation at arrest (cm)	6.1 ± 0.70 (4-7)	5.9 ± 0.40 (4-6)	1.75	0.083

$P > 0.05$

Table (3): The interval between cervical dilatation at admission and at arrest and between drug intake and delivery between both the propranolol treated group and control group of dysfunctional labor.

Parameters	Study group (n = 50) Mean ± SD (range)	Control group (n = 50) Mean ± S.D (range)	t	P
Interval between cervical dilatation at admission and at arrest (hours)	3.6 ± 1.06 (3-4.5)	3.4 ± 1.13 (3-4.5)	0.91	0.36
Drug-delivery interval (hours)	2.2 ± 1.02 (1.2-3.6)	3.7 ± 1.3 (2.3-5)	7.0	< 0.001

Table (4): The mode of delivery in both the propranolol treated group and control group of dysfunctional labor.

Mode of delivery	Study (n = 50)		Control (n = 50)		X^2	P
	No.	%	No.	%		
Vaginal delivery	40	80	31	62	3.93	0.04
Cesarean section	10	20	19	38		

P < 0.05

Table (5): Neonatal outcome in both the propranolol treated group and control group of dysfunctional labor.

Parameters	Study group (n = 50) Mean ± SD (range)	Control group (n = 50) Mean ± S.D (range)	t	P
Apgar score at 1 minute	8.2 ± 0.8 (6-9)	7.8 ± 0.7 (6-9)	1.17	0.63
Apgar score at 5 minutes	9.5 ± 0.9 (7-10)	9.5 ± 1.1 (7-10)	0.13	0.9
Birt weight of neonates (gms)	3395.0 ± 265.8 (2880-3860)	3361.0 ± 300.8 (2900-3900)	0.46	0.64

$P > 0.05$

Table (6): Neonatal admission to NICU among both the propranolol treated group and control group of dysfunctional labor.

Admitted cases	Study group		Control group		X^2	P
	No.	%	No.	%		
Yes	2	4	3	6	0.21	0.65
No	48	96	47	94		

P > 0.05

Table (7): Indications for admission to NICU among both the propranolol treated group and control group of dysfunctional labor.

Indications for admission	Study group (n = 2)	Control group (n =3)	X^2	P
Meconium aspiration	0	1	0.83	0.66
Respiratory distress	1	1		
Bradycardia (less than 100 beats/min)	1	1		

P > 0.05