Results

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Group I :

Effect of the fetal membranes on basal and stimulated uterine contractions of non pregnant and pregnant rats.

Group I-1-(A) :

Effect of FM (FTFM and MFM) on basal uterine contractions of non pregnant rat.

Subgroup I-1-(A)a :-

Effect of FTFM on basal uterine contractions of non pregnent rat was illustrated in Fig. (10) and table (1). The basal frequency of uc ranged between 0.70 / min and 1.2/ min with a mean value of 0.95 ± 0.19 /min and basal amplitude of uc ranged between 1.70 cm to 2.30 cm with a mean value of 2.02 ± 0.23 cm while the basal duration of uc ranged between 50.00 sec to 86.00 sec with a mean value of 65.17 ± 13.35 sec. The addition of FTFM to the bath resulted in a significant decrease in both frequency and amplitude of uterine contractions while there was significant increase in duration of uterine contractions. The frequency decreased to a range of 0.4 to 0.8 / min and mean value of 0.58 ± 0.15 /m ($P < 0.05$) and the amplitude decreased to a range of 1.1 - 1.5 cm and a mean value of 1.29 ± 0.15 cm ($P < 0.01$). The duration increased to a range of 75 - 150 sec with a mean value of 108.5 ± 27.16 sec ($P < 0.05$).

Subgroup I-1-(A)b :-

Effect of MFM on basal uterine contractions of non pregnant rate was demonstrated in Fig. (11) and table (2). The basal frequency of uc ranged between 0.6 / min and 1.0/ min with a mean value of 0.81 ± 0.15 /min and basal amplitude of uc ranged between 1.9 cm to 2.30 cm with a mean value of 2.03 ± 0.15 cm while the basal duration of uc ranged between 60 sec to 100 sec with a mean value of 75.83 ± 15.94 sec.

The addition of MFM to the bath resulted in significant decrease in both frequency and amplitude of uterine contractions while there was significant increase in duration of uterine contractions. The frequency decreased to a range of 0.3- 0.8 / min with a mean value of 0.55 ± 0.19 /m ($P < 0.05$) and the amplitude decreased to a range of 0.7-1.2 cm with a mean value of 1.00 ± 0.18 cm ($P < 0.01$). The duration increased to a range of 75-200 sec with a mean value121.83 ± 46.61 sec ($P < 0.05$).

Group I-1-(B) :-

Effect of FM (FTFM and MFM) on basal UC of Pregnant rat.

Subgroup I-1-(B)a :-

The results of this group was illustrated in Fig. (10) and table (1). The basal frequency of uc ranged between 0.62 / min and 1.0/min with a mean value of 0.79 ± 0.15 /min and basal amplitude of uc ranged between 3 cm to 4 cm with a mean value of 3.5 ± 0.42 cm while the basal duration of uc ranged between 60 sec to 96 sec with a mean value of 78.5 ± 14.55 sec.

The addition of FTFM to bath resulted in significant decrease in both frequency to a range of 0.31-0.76 /min with a mean value of 0.52 ± 0.16 /min ($P < 0.05$) and amplitude to a range of 1.9-3.1 cm with a mean value of 2.57 ± 0.46 cm ($P < 0.05$) of UC while there ws significant increase in duration of UC to a range of 73.5-185 with a mean value of 119.58 ± 42.70 sec ($P < 0.05$).

Subgroup I-1-(B)b :

The effect of MFM on basal UC of pregnant rat was illustrated in Fig. (11) and table (2). The basal frequency of uc ranged between 0.66 / min and 1.0/min with a mean value of 0.83 ± 0.13 /min and basal amplitude of uc ranged between 2.8 cm to 4.2 cm with a mean value of 3.53 ± 0.55 cm while the basal duration of uc ranged between 60 sec to 91 sec with a mean value of 75.5 ± 12.18 sec.

There was significant decrease in both frequency to a range of 0.44-0.72 / min with a mean value of 0.61 ± 0.11 /m($P < 0.05$)] and amplitude to a range of 2..0-2.8 cm with a mean value of 2.23 ± 0.30 cm($P < 0.01$)] of UC after addition of MFM to the bath while there was significant increase in duration of UC to a range of 84-135 sec with a mean value of 101.33 ± 19.98 sec ($P < 0.05$).

Group I-2-(A) :-

Effect of FM (FTFM and MFM) on stimulated uterine contractions by $PGF_{2\alpha}$ 1 µg% of non pregnant rat.

Subgroup I-2-(A)a :-

Effect of FTFM on stimulated uterine contractions by $PGF_{2\alpha}$1 µg% of non pregnant rat was illustrated in Fig. (12) and table (3).

The basal frequency of uc ranged between 0.5 / min and 0.9/ min with a mean value of .72 ± 0.15 /min and basal amplitude of uc ranged between 1.1 cm to 1.8 cm with a mean value of 1.45 ± 0.29 cm while the basal duration of uc ranged between 65 sec to 120 sec with a mean value of 86.83 ± 20.15 sec.

The addition of $PGF_{2\alpha}$ 1μg% to the bath resulted in significant increase in both frequency and amplitude of uterine contractions, the frequency increased to a range of 2.0-2.4 with a mean value of 2.22 ± 0.15 /m ($P < 0.01$) and the amplitude increased to a range of 2.9-3.5 cm with a mean value of 3.18 ± 0.23 /cm ($P < 0.01$), while there was significant decrease in duration of uterine contraction to a range of 23.5-30.0 sec with a mean value of 26.58 ± 2.33 /sec ($P < 0.01$). In addition of FTFM to bath containing stimulated uterine horn by $PGF_{2\alpha}$ resulted in significant decrease in both frequency and amplitude of uc. The frequency decrease to a range of 0.7-1.1 / min with a mean value of 0.92/m ± 0.15/min ($P < 0.01$), and amplitude to a range of 1.5-2.1 cm with a mean value of 1.83 ± 0.22 /cm ($P < 0.01$) but duration of uterine contractions increased to a range of 55-86 sec with a mean value of 66.83 ± 11.58 sec ($P < 0.01$).

Subgroup I-2-(A)b :-

Effect of MFM on stimulated uterine contractions by $PGF_{2\alpha}$ 1μg% of non pregnant rate was illustrated in Fig. (13) and table (4). The basal frequency of uc ranged between 0.7 / min and 1.1/ min with a mean value of 0.88 ± 0.15 /min and basal amplitude of uc ranged between 0.8 cm to 1.6 cm with a mean value of 1.2 ± 0.3 cm

while the basal duration of uc ranged between 55 sec to 86 sec with a mean value of 69.33 ± 11.43 sec.

The addition of $PGF_{2\alpha}$ 1μg% to the bath resulted in significant increase in frequency of uterine contractions from to a range of 1.7 -2.1/min with a mean value of 1.88 ± 0.15 /m ($P < 0.01$) significant increase in amplitude of UC to a range of 2.0-3.5 cm with a mean value of 2.67 ± 0.62/cm ($P < 0.01$) while there was significant decrease in duration of uc to a range of 28.5-35.0 sec with a mean value of 31.83 ± 2.34 sec ($P < 0.01$)

The addition of MFM to the bath containing stimulated uterine horn by $PGF_{2\alpha}$ 1μg% resulted in significant decrease in frequency of UC to a range of 0.8-1.3 / min with a mean value of 0.96 ± 0.18 /m ($P <$ 0..1) and amplitude to a range 1.2-1.8 cm with a mean value of 1.45 ± 0.23 cm ($P < 0.01$) while there was significant increase in the duration of uc to a range of 46-75 sec with a mean value of 63.92 ± 10.42 sec ($P < 0.01$).

Group I-2-(B) :-

Effect of FM (FTFM and MFM) on stimulated UC by $PGF_{2\alpha}$ 0.5μg%) of pregnat rat.

Subgroup I-2-(B)a :

Fig. (12) and tables (3) demonstrated the basal frequency of uc ranged between 0.42 / min and 0.82/min with a mean value of 0.859 ± 0.16 /min and basal amplitude of uc ranged between 0.7 cm to 1.1 cm with a mean value of 0.88 ± 0.17 cm while the basal duration of uc ranged between 73.5 sec to 142 sec with a mean value of 108.58 ± 29.24 sec.

The addition of $PGF_{2\alpha}$ 0.5µg% to bath resulted in significant increase in both frequency to a range of 2.1-2.55/min with a mean value of 2.31 ± 0.16 /m (P < 0.01)] and amplitude to a range of 3.5-4.2 cm with a mean value of 3.92 ± 0.25 cm (P < 0.01)] of UC but there was significant decrease in duration of UC to a range of 21.0-28.5 sec with a men value of 25.08 ± 2.71 sec (P < 0.01)] .When FTFM added to bath containing stimulated uterine horn by $PGF_{2\alpha}$ 0.5µg%, there was significant decrease in both frequency to a range of 0.66-1.0 / min with a mean value of 0.81 ± 0.12 /m (P < 0.01) and amplitude to a range of 2.1-2.5 cm with a mean value of 2.35 ± 0.15 cm(P <0.01) of UC while there was significant increase in duration of UC to a range of 60-91 sec with a mean value of 74.92 ± 11.25 sec (P < 0.01].

Subgroup I-2-(B)b :-

The results of this group illustrated in Fig. (13) and table (4). The basal frequency of uc ranged between 0.42 / min and 0.75/min with a mean value of 0.58 ± 0.14 /min and basal amplitude of uc ranged between 0.8 cm to 1.3 cm with a mean value of 1.03 ± 0.19 cm while the basal duration of uc ranged between 80.0 sec to 142 sec with a mean value of 108.33 ± 25.85sec.

The addition of $PGF_{2\alpha}$ 0.5µg% resulted in significant increase in both frequency to a range of 1.8-2.3 /min with a mean value of 2.03 ± 0.17 cm(P < 0.01) and amplitude to a range of 2.9-3.5 cm with a mean value of 3.20 ± 0.23 cm (P < 0.01)] of UC but there was significant decrease in duration of UC to a range of 25.5-33.0 sec with a mean value of 29.5 ± 2.63 sec (P < 0.01)]. The addition of MFM showed significant decrease in frequency to a range of 0.66-

1.0 / min with a mean value of 0.84 ± 0.12 /m (P <0.01) and amplitude to a range of 1.9-2.4 cm with a mean value of 2.12 ± 0.17 cm (P < 0.01) while there was significant increase in duration of UC to a range of 60-91 sec with a mean value 72.38 ± 11.56 sec (P < 0.01)].

Group I-3-(A) :

Effect of the fetal membranes on stimulated uterine contractions of non pregnant and pregnant rats by oxytocin (OT) 1mu/ml.

Subgroup I-3-(A)a :-

Effect of FTFM on stimulated UC by OT 1 mu/ml of non pregnant rat showed in Fig. (14) and table (5).

The basal frequency of uc ranged between 0.66 / min and 1.0/ min with a mean value of 0.81 ± 0.12 /min and basal amplitude of uc ranged between 0.7 cm to 1.3 cm with a mean value of 1.0 ± 0.2 cm while the basal duration of uc ranged between 60 sec to 91 sec with a mean value of 74.08 ± 12.27 sec.

The addition of OT to the bath revealed significant increase in frequency of UC to a range of 1.13 ± 1.5 /min with a mean value of 1.34 ± 0.13 (P < 0.01), significant increase in the amplitude of UC to a range of 2.8-3.0 cm and mean value of 2.95 ± 0.08 cm (P < 0.01) and significant decrease in the duration of UC to a range of 42.2-53.0 sec with a mean value of 47.15 ± 4.88 (P < 0.01).

The addition of FTFM to bath containing stimulated uterine horn by OT resulted in insignificant decrease in frequency and

amplitude of UC to a range of 1.09-1.31 / min with a mean value of 1.22± 0.09 /m (P > 0.05) and to a range of 2.6-3.0 cm with a mean value of 2.83 ± 0.16 /cm (P > 0.05) respectively. Also, there was insignificant increase in duration of UC to a range of 45.8-55.0 sec with a mean value of 50.27 ± 4.17 sec (P > 0.05).

Subgroup I-3-(A)b :-

Fig. (15) and Table (6) showed effect of MFM on stimulated UC by OT 1 mu/ml of non pregnant rat. The basal frequency of uc ranged between 0.66 / min and 1.0/ min with a mean value of 0.84 ± 0.12 /min and basal amplitude of uc ranged between 0.9 cm to 1.7 cm with a mean value of 1.28 ± 0.33 cm while the basal duration of uc ranged between 60 sec to 91 sec with a mean value of 72.38 ± 11.56 sec.

There was significant increase in frequency and amplitude of UC after addition of OT to the bath [to a range of 0.9-1.4/min with a mean value of 1.18 ± 0.18 /m (P < 0.05)] and [to a range of 2.6-4.1 cm with a mean value of 3.50 ± 0.59 cm (P < 0.01)] respectively, while there was significant decrease in duration of UC to a range of 42.6-65 sec with a mean value of 51.97/sec ± 8.00 (P < 0.05). The addition of MFM to bath resulted in insignificant decrease in both frequency and amplitude of UC to a range of 1.0-1.22 /min with a mean value of 1.08± 0.08 /m (P > 0.05) and to a range of 2.4-4.0 cm with a mean value of 3.42 ± 0.64 cm (P > 0.05) but there was insignificant increase in duration of UC to a range of 48.8-60.0 sec with a mean value of 55.72 ± 3.91 sec (P > 0.05).

Group I-3-(B) :

Effect of FM (FTM and MFM) on stimlated UC by OT 0.5 mu/ml of pregnant rat.

Subgroup I-3-(B)a :

Fig. (14) and table (5) demonstrated that the basal frequency of uc ranged between 0.3 / min and 0.6/min with a mean value of 0.48 ± 0.11 /min and basal amplitude of uc ranged between 0.9 cm to 1.4 cm with a mean value of 1.15 ± 0.19 cm while the basal duration of uc ranged between 100 sec to 200 sec with a mean value of 132 ± 35.86 sec.

The addition of OT to bath resulted in significant increase in frequency to a range of 1.2-1.6 /min with a mean value of 1.42 ± 0.14 /m ($P < 0.01$) and amplitude to a range of 2.0-2.5 cm with a mean value of 2.32 ± 0.22 cm ($P < 0.01$) of UC while there was significant decrease in duration of UC to a range of 37.4-50.0 sec with a mean value of 42.65 ± 4.55 sec ($P < 0.01$). The addition of FTFM to bath resulted in insignificant decrease in frequency to a range of 1.18-1.55 / min with a mean value of 1.34 ± 0.14 /m ($P > 0.05$)] and amplitude to a ramnge of 1.9-2.4 cm with a mean value of 2.12 ± 0.19 cm ($P > 0.05$) of UC but there was insignificant increase in duration of UC after addition of FTFM to stimulated uterine horn by OT o.5 mu/ml to a range of 39.25-50.25 sec with a mean value 45.11 ± 4.20 sec ($P > 0.05$).

Subgroup I-3-(B)b:-

Effect of MFM on stiimulated UC by OT 0.5 mu.ml of pregnant rat was illustrated in Fig. (15) and table (6). The basal frequency of uc ranged between 066 / min and 1.0/min with a mean value of

0.83 ± 0.13 /min and basal amplitude of uc ranged between 0.8 cm to 1.3 cm with a mean value of 1.05 ± 0.19 cm while the basal duration of uc ranged between 60 sec to 90 sec with a mean value of 73 ± 12.1 sec.

The addition of OT to bath resulted in significant increase in frequency to a range of 1.45-1.95 /min with a mean value of 1.72 v0.17 /min ($P < 0.01$)] and amplitude to a range of 2.8-3.2 cm with amean value of 3.02 ± 0.15 cm ($P < 0.01$) of UC but there was significant decrease in duration of UC to a range of 30.5 - 41.25 with a mean value of 35.31 ± 3.91 sec($P < 0.01$).

When MFM added to bath there was insignificant decrease in frequency to a range of 1.2-1.75 /min with a mean value of 1.51 0.19 /min ($P > 0.05$) and amplitude to a range of 2.6-3.1 cm with a mean value of 2.85 ± 0.19 cm($P > 0.05$) but there was insignificant increase in duration of UC to a range of 34.1-50.0 sec with a mean value of 40.47 ± 5.41 sec ($P > 0.05$).

Group II :

Effect of calcium channel blocker (Nifidipine) on basal and stimulated uterine contractions of non pregnant and pregnant rats.

Group II-1-(A) :-

Effect of CCB (nifidipine in doses 5, 10 and 15 µg%) on basal UC of non pregnant rat was illustrated in Fig. (16) and table (7). The basal frequency of uc ranged between 0.43 / min and 0.81/min with a mean value of 0.64 ± 0.15 /min and basal amplitude of uc ranged between 1.0 cm to 1.7 cm with a mean value of 1.47 ± 0.22

cm while the basal duration of uc ranged between 74.5 sec to 138 sec with a mean value of 97.92 ± 24.65 sec.

The addition 5 µg% nifidipine to bath resulted in significant decrease (compared to basal group) in frequency to a range of 0.21-0.59 /min with a mean value of 0.42 ± 0.14 /m ($P < 0.05$) and amplitude to a range of 0.9-1.3 cm with a mean value of 1.08 ± 0.15 cm ($P < 0.05$) of UC while there was significant increase in duration of UC to a range of 103-300 sec with a mean value of 165.83 ± 74.05 sec ($P < 0.05$).

Addition of 10 µg% nifidipine to bath after 5 µg% nifidipine decreased significantly (compared to basal group) the frequency to a range of 0.19-0.35 /min with a mean value of 0.26 ± 0.06 /m ($P < 0.01$) and amplitude to a range of 0.5-0.9 cm with a mean value 0.70 ± 0.14 cm ($P < 0.01$) while the duration increased significantly to a range of 170-315 sec with a mean value of 245.0 ± 58.99 sec ($P < 0.01$)]of U. C .

Addition of 15 µg% nifidipine to bath after 10 µg% nifidipine resulted in complete inhibition of uterine contraction .

Group II-1-(B) :-

Fig. (16) and table (7) illustrated effect of nifidipine (in doses 5, 10 and 15 µg%) on basal uc of pregnant rats. The basal frequency of uc ranged between 0.43 / min and 0.76 /min with a mean value of 0.60 ± 0.12 /min and basal amplitude of uc ranged between 2.0 cm to 2.7 cm with a mean value of 2.4 ± 0.24 cm while the basal duration of uc ranged between 78 sec to 138 sec with a mean value of 103.0 ± 21.83 sec.

Addition of 5 μg% nifidipine to bath resulted in significant decrease (compared to basal group) in frequency and amplitude of uc to a range of 0.21- 0.59 / min with a mean value of 0.42 ± 0.14 /m ($P < 0.05$)] and to a range of 0.9-1.7 cm with a mean value of 1.33 ± 0.3 cm ($P < 0.01$) respectively while duration of uc increased significantly to a range of 103.0 -300 with a mean value of 165.83 ± 74.05 sec ($P < 0.05$).

Addition of 10 μg% nifidipine after 5 μg% nifidipine resulted in significant decrease (compared to basal group) in frequency to a range of 0.19-0.45 / min with a mean value of 0.31 ± 0.10 /m ($P < 0.01$) and amplitude to a range of 0.8-1.5 cm with a mean value of 1.17 ± 0.29 cm ($P < 0.01$) while duration of uc increased significantly to a range of 132-315 sec with a mean value of 212.0 ± 76.2 sec ($P < 0.05$).

Addition of 15 μg% nifidipine after 10 μg% nifidipine resulted in complete inhibition of uc.

Group II-2-(A) :-

Effect of CCB (nifidipine in doses 5, 10 and 15 μg%) on stimulated (by 1 μg% $PGF_{2\alpha}$) UC of non pregnant rat was illustrated in Fig. (17) and table (8). The basal frequency of uc ranged between 0.5 / min and 0.9/min with a mean value of 0.72 ± 0.15 /min and basal amplitude of uc ranged between 1.2 cm to 1.8 cm with a mean value of 1.47 ± 0.26 cm while the basal duration of uc ranged between 65 sec to 120 sec with a mean value of 86.83 ± 20.15 sec.

Addition of 1 μg% $PGF_{2\alpha}$ to bath resulted in significant increase in frequency to a range of 1.8-2.4 /min with a mean value of 2.12 ±

0.25 /m ($P < 0.01$) and amplitude to a range of 3.5-4.9 cm with a mean value of 4.3 ± 0.55 cm ($P < 0.01$) of UC, while there was significant decrease in duration of UC to a range of 23.5-33.0 sec with a mean value of 28.17 ± 3.84 sec ($P < 0.01$).

Addition of 5 µg% nifidipine to bath containing stimulated uterine horn by $PGF_{2\alpha}$ decrease significantly (compared to stimulated group) frequency to a range of 0.31-0.76/min with a meanvalue of 0.51 ± 0.16 /m ($P < 0.01$) and amplitude to a range of 1.5-2.1 cm with a mean value 1.86 ± 0.22 cm ($P < 0.01$) of UC while duration of UC significantly increase to a range of 78-185 sec with a mean value 125.17 ± 37.87 sec ($P < 0.01$).

Addition of 10 µg% nifidipine to bath after 5 µg% nifidipine decreased significantly (compared to stimulated group) the frequency to a range of 0.28-0.34 /min with a mean value 0.31 ± 0.02 /m ($P < 0.01$) and amplitude to a range of 1.0-1.37 cm with a mean value of 1.17 ± 0.13 cm ($P < 0.01$) while duration of UC increased significantly to a range of 178-220 sec with a mean value of 195.5 ± 17.25 sec ($P < 0.001$).

Addition of 15 µg% nifidipine to bath after 10 µg% nifidipine resulted in complete inhibition of UC .

Group II-2-(B) :-

lEffect of nifidipine (in doses 5, 10 and 15 µg%) on stimulated (by 0.5 µg% $PGF_{2\alpha}$) uc of pregnant rat demonstrated in Fig. (17) and table (8). The basal frequency of uc ranged between 0.42 / min and 0.75 /min with a mean value of 0.57 ± 0.13 /min and basal amplitude of uc ranged between 1.01 cm to 2.0 cm with a mean

value of 1.6 ± 0.35 cm while the basal duration of uc ranged between 80 sec to 142 sec with a mean value of 109.33 ± 24.82 sec.

Addition $PGF_{2\alpha}$ resulted in significant increase both frequency and amplitude of uc to 1.5 ± 1.7/min with a mean value of 1.62 ± 0.08 ($P < 0.001$)and amplitude to a range of 3.8-4.5 cm with a mean value of 4.15 ± 0.3 cm ($P < 0.01$) respectively, while duration of uc decreased significantly to a range of 155-220 with a mean value of 37.22 ± 2.1 sec (H. S. as $P < 0.01$).

Addition of 5 µg% nifidipine to bath containing stimulated uterine horn by $PGF_{2\alpha}$ resulted in significant decrease in both frequency and amplitude of uc, compared to stimulated group, to a range of 0.28-0.39 / min with a mean value of 0.33 ± 0.05 /m ($P < 0.001$)] and to a range of 2.0-2.6 with a mean value of 2.23 ± 0.21 cm ($P < 0.01$)] respectively while duration of uc increased significantly to a range of 155-220 with a mean value of 18633/sec ± 28.33 ($P < 0.01$).

Addition of 10 µg% nifidipine after 5 µg% nifidipine resulted in significant decrease, compared to stimulated group, in frequency to a range of 0.15-0.31 /min and amean value of 0.23 ± 0.07 /m ($P < 0.001$) and amplitude of uc to a arnge of 0.8-1.88 cm with a mean value of 1.2 ± 0.51 cm ($P < 0.01$) while there was significant increase in duration of uc to a range of 185-410 sec with a mean value of 286.5 ± 92.54 sec ($P < 0.01$).

Addition of 15 µg% nifidipine to bath after 10 µg% nifidipine resulted in complete inhibition of uc.

Group II- (3)(A) :

Fig. (18) and table (9), demonstrated effect of nifidipine (in doses of 5, 10, 15 and 20 μg%) on stimulated (by 1 mu/ml OT) uc of non pregnant rat. The basal frequency of uc ranged between 0.42 / min and 0.76 /min with a mean value of 0.55 ± 0.13 /min and basal amplitude of uc ranged between 1.1 cm to 1.45 cm with a mean value of 1.27 ± 0.12 cm while the basal duration of uc ranged between 8 sec to 142 sec with a mean value of 113.5 ± 26.17 sec.

Addition of OT resulted in significant increase in frequency to a range of1.18-1.55 /min with a mean value1.35 ± 0.13 /m ($P < 0.01$) and amplitude of uc to a range of 1.9-2.51 cm with a mean value of 2.15 ± 0.21 cm ($P < 0.01$)] while there was significant decrease in duration of uc to a range of 39.25-52.5 with a mean value 44.94 ± 4.58 sec ($P < 0.01$).

Addition of 5 μg% nifidipine to bath containing stimulated uterine horn by OT resulted in significant decrease in both freuency and amplitude of uc (compared to stimulated group), to a range of 0.7-1.0 /min with a mean value of 0.83 ± 1.53 /m ($P < 0.01$) and to a range of 1.4-1.7 cm with a mean value of 1.53 ± 0.11 cm($P < 0.01$) respectively while there was significant increase in duration of uc to a range of 60-86 with a mean value of 73.73 ± 10.03 sec ($P < 0.01$) .

Addition of 10 μg% nifidipine after 5 μg% nifidipine resulted in significant decrease (compared to stimulated group) in frequency to arange of 0.42-0.75 /min with a mean value of 0.57 ± 0.13 /m ($P < 0.01$) and amplitude to a range of 1.22-1.5 cm with a mean value of

Addition of 5 µg% nifidipine to bath containing stimulated uterine horn by OT resulted in significant decrease, compaed to stimulated group, in both frequency and amplitude of uc, to a range of 0.5-0.63/min with a mean value of 0.58 ± 0.05 /m ($P < 0.001$) and to a range of 1.6-2.1 cm with a mean value of 1.9 ± 0.18 cm ($P < 0.01$) respectively, but duration of uc increased significantly to a range of 95-120 sec with a mean value of 104.5 ± 9.87 sec ($P < 0.001$)

Addition of 10 µg% nifidipine after 5 µg% nifidipine resulted in significant decrease, compared to stimulated group, in frequency to ara nge of 0.28-0.39 /min with a mean value of 33.0 ± 0.05 /m($P < 0.001$) and amlitude of uc to a range of 1.0-1.60 cm with a mean value of 1.38 ± 0.25 cm ($P < 0.001$) but there was significant increase in duration of uc to a range of 155-220 sec with a mean value of 186.33 ± 28.33 sec ($P < 0.001$).

Addition of 15 µg% nifidipine after 10 µg% nifidipine resulted in significant decrease; compared to stimulated group, in frequency [to a range of 0.15-0.31 with a mean value of 0.73 ± 0.07 /m ($P < 0.001$) and amplitude to a range of 1.0 -1.6 cm with a mean value of 1.22 ± 0.24 cm ($P < 0.001$) but duration of uc increased significantly to a range of 185-410 sec with a mean value of 286.5 ± 92.54 sec ($P < 0.001$).

Addition of 20 µg% nifidipine after 15 µg% nifidipine resulted in complete inhibition of uc.

Group III :

Effect of fetal membrane (FTFM) and CCB [nifidipine (5 µg%)] on basal contraction of non pregnant and pregnant rats.

Group III-(A) :

Effect of fetal membrane (FTFM) and CCB [nifidipine (5 µg%)] on basal contraction of non pregnant rats was illustrated in Fig (19)) and atble (10) . The basal frequency of uc ranged between 0.6/ min and 1.0/ min with a mean value of 0.81 ± 0.15 /min and basal amplitude of uc ranged between 1.9 cm to 2.30 cm with a mean value of 2.03 ± 0.15 cm while the basal duration of uc ranged between 60 sec to 100 sec with a mean value of 75.83 ± 15.94 sec.

The addition of FTFM to the bath resulted in significant decrease in both frequency and amplitude of uterine contractions while there was significant increase in duration of uterine contractions. The frequency decreased to a range of 0.3- 0.8 / min with a mean value of 0.55 ± 0.19 /m ($P < 0.05$) and the amplitude decreased to a range of 0.7-1.2 cm with a mean value of 1.00 ± 0.18 cm ($P < 0.01$). The duration increased to a range of 75-200 sec with a mean value121.83 ± 46.61 sec ($P < 0.05$).

Addition of CCB (nifidipine 5 µg%) to bath after FTFM resulted in complete inhibition of uc.

Group III-(B):

Effect of fetal membrane (FTFM) and CCB [nifidipine (5 µg%)] on basal contraction of pregnant rats.

Effect of fetal membrane (FTFM) and CCB [nifidipine (5 μg%)] on basal contraction of pregnant rats was illustrated in Fig (19)) and table (10). The basal frequency of uc ranged between 0.43 / min and 0.81/min with a mean value of 0.64 ± 0.15 /min and basal amplitude of uc ranged between 1.0 cm to 1.7 cm with a mean value of 1.47 ± 0.22 cm while the basal duration of uc ranged between 74.5 sec to 138 sec with a mean value of 97.92 ± 24.65 sec.

The addition FTFM to bath resulted in significant decrease (compared to basal group) in frequency to a range of 0.21-0.59 /min with a mean value of 0.42 ± 0.14 /m ($P < 0.05$) and amplitude to a range of 0.9-1.3 cm with a mean value of 1.08 ± 0.15 cm ($P < 0.05$) of UC while there was significant increase in duration of UC to a range of 103-300 sec with a mean value of 165.83 ± 74.05 sec ($P < 0.05$).

Addition of CCB (nifidipine 5 μg%) to bath after FTFM resulted in complete inhibition of uc.

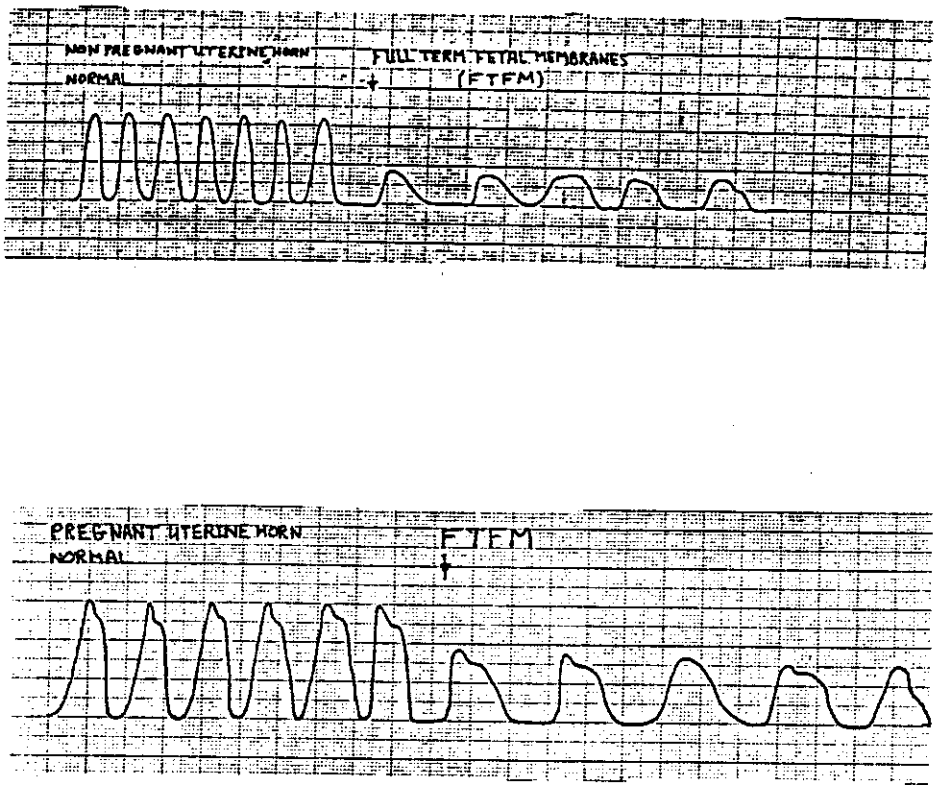
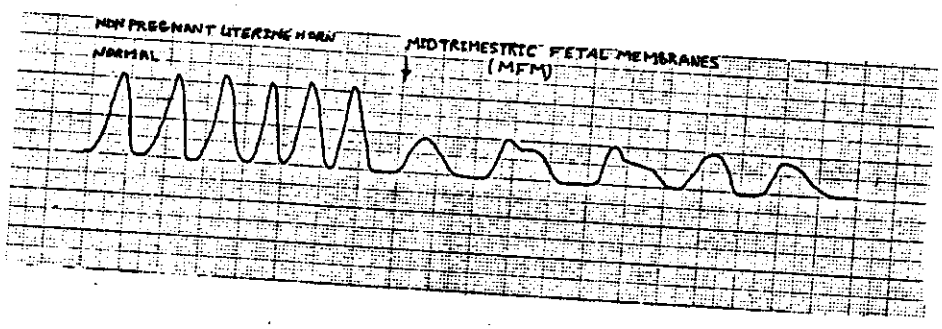


Fig. (10) : Effect FTFM on basal uterine contraction (uc) of non pregnant and pregnant rats .

(Table 1) : Effect FTFM on basal uterine contraction (uc) of non pregnant and pregnant rats .

	No.	Basal Uterine Contraction (UC)			Full Term Fetal Membranes (FTFM)		
		Frequency / min(F/min)	Amplitude cm (A cm)	Duration sec. (D sec)	Frequency / min(F/min)	Amplitude cm (A cm)	Duration sec. (D sec)
Non Pregnant Uterine Horn	1	0.9	2.2	65.00	0.5	1.31	120.0
	2	1.1	2.1	55.00	0.6	1.21	100.0
	3	0.8	1.8	75.00	0.5	1.10	120.0
	4	1.0	2.0	60.00	0.7	1.40	86.0
	5	0.7	1.7	86.00	0.4	1.20	150.0
	6	1.2	2.3	50.00	0.8	1.50	75.0
	Range	0.7 - 1.2	1.7 - 2.3	50 - 86	0.4 - 0.8	1.1 - 1.5	75 - 150
	Mean	0.95	2.02	65.17	0.58	1.29	108.5
	S. D.	± 0.19	± 0.23	± 13.35	± 0.15	± 0.15	± 27.16
	t				3.773	6.525	3.508
	P				< 0.05*	< 0.01*	< 0.05*
Pregnant Uterine Horn	1	0.71	3.0	85.0	0.44	1.9	135.0
	2	0.62	3.5	96.0	0.31	2.8	185.0
	3	0.81	3.0	74.0	0.58	2.1	104.0
	4	1.00	4.0	60.0	0.76	2.8	78.0
	5	0.92	3.8	64.0	0.62	3.1	73.5
	6	0.66	3.7	91.0	0.42	2.7	142.0
	Range	0.62 - 1.00	3 - 4	60 - 96	0.31 - 0.76	1.9 - 1.3	73.5 - 185
	Mean	0.79	3.5	78.5	0.52	2.57	119.58
	S. D.	± 0.15	± 0.42	± 14.55	± 0.16	± 0.46	± 42.7
	t				2.931	3.658	2.231
	P				< 0.5*	< 0.5*	< .05*

* Significant change compared with basal value :



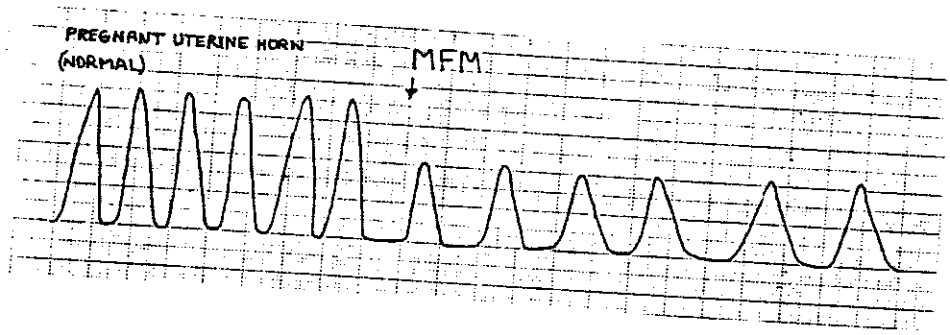
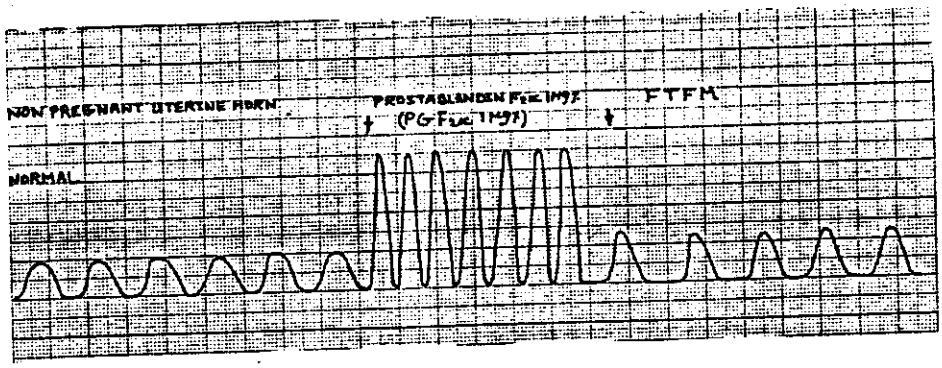


Fig. (11) : Effect MFM on basal uterine contraction (uc) of non pregnant and pregnant rats .

(Table 2) : Effect MFM on basal uterine contraction (uc) of non pregnant and pregnant rats .

	No.	Basal Uterine Contraction (UC)			Midtrimectric Fetal Membranes (MFM)		
		Frequency / min(F/min)	Amplitude cm (A cm)	Duration sec. (D sec)	Frequency / min(F/min)	Amplitude cm (A cm)	Duration sec. (D sec)
Non Pregnant Uterine Horn	1	0.67	2.0	90.0	0.5	1.00	120.0
	2	0.90	2.1	65.0	0.6	1.1	100.0
	3	1.00	2.3	60.0	0.7	1.2	86.00
	4	0.6	1.9	10.0	0.3	0.7	200.0
	5	0.8	1.9	75.0	0.4	0.9	150.0
	6	0.9	2.0	65.0	0.8	1.1	75.00
	Range	0.6 -1.0	1.9 - 2.3	60 - 100	0.3 - 0.8	0.7 - 1.2	75 - 200
	Mean	0.81	2.03	75.83	0.55	1.00	121.83
	S. D.	±0.15	±0.15	±15.94	± 0.19	± 0.18	± 46.61
	t				2.656	10.826	2.287
	P				< 0.05*	< 0.01*	< 0.05*
Pregnant Uterine Horn	1	0.71	3.7	65.0	0.52	2.0	115.0
	2	0.66	3.5	91.0	0.44	2.3	135.0
	3	0.83	4.0	73.0	0.61	2.2	98.00
	4	0.92	2.8	64.0	0.72	2.0	84.00
	5	0.88	3.0	68.0	0.67	2.1	90.00
	6	1.00	4.2	60.0	0.7	2.8	86.00
	Range	0.66 - 1.00	2.8 - 4.2	60 - 91	0.44 - 0.72	2.0 - 2.8	84 - 135
	Mean	0.83	3.53	65.5	0.61	2.23	101.33
	S. D.	± 0.13	± 0.55	± 12.13	± 0.11	± 0.3	± 19.98
	t				3.229	5.077	2.914
	P				< 0.05*	< 0.01*	< 0.05*

* Significant change compared with basal value :



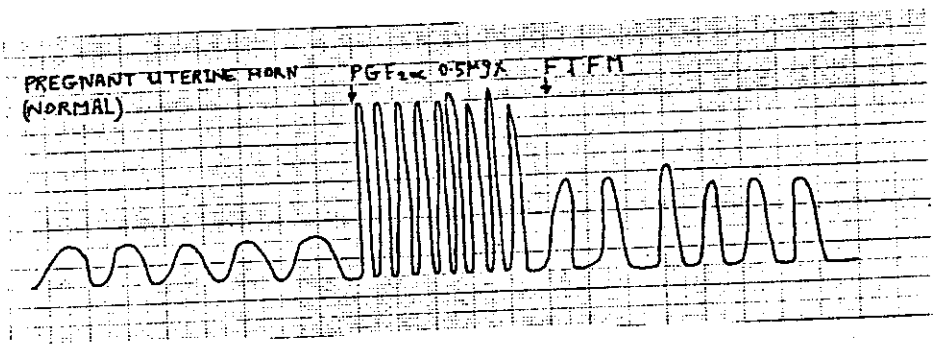
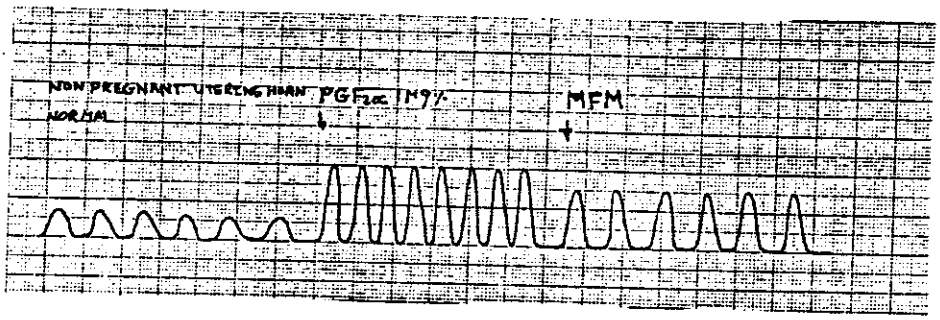


Fig. (12) : Effect FTFM on stimulated uterine contraction (uc) of non pregnant by ($PGF_{2\alpha}$ 1µg%) and pregnant ($PGF_{2\alpha}$ 0.5 µg%) rats .

(Table 3) : Effect FTFM on stimulated uterine contraction (uc) of non pregnant by ($PGF_{2\alpha}$ 1µg%) and pregnant ($PGF_{2\alpha}$ 0.5 µg%) rats .

	No.	Basal UC			($PGF_{2\alpha}$)			(FTFM)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	0.6	1.1	100	2.3	3.5	25.5	0.8	1.7	75
	2	0.7	1.3	86	2.1	3.4	28.5	0.9	1.8	65
	3	0.8	1.2	75	2.2	3.0	26.5	1.0	1.5	60
	4	0.5	1.7	120	2.0	3.2	30.0	0.7	1.9	86
	5	0.8	1.8	75	2.3	3.1	25.5	1.0	2.0	60
	6	0.9	1.6	65	2.4	2.9	23.5	1.1	2.1	55
	Range	0.5 - 0.9	1.1 - 1.8	65 - 120	2.0 - 2.4	2.9 - 3.5	23.5 - 30	0.7 - 1.1	1.5 - 2.1	55 - 86
	Mean	0.72	1.45	86.83	2.22	3.18	26.58	0.92	1..83	66.83
	S. D.	± 0.15	± 0.29	± 0.15	± 0.15	± 0.23	± 2.33	± 0.15	± 0.22	± 11.58
	t				17.650	11.485	7.274	15.297	10.40	8.344
	P				< 0.01*	< 0.01*	< 0.01*	< 0.01**	< 0.01**	< 0.05**
Pregnant Uterine Horn	1	0.71	1.0	85	2.25	4.2	26.5	0.75	2.5	80
	2	0.82	1.1	73.5	2.42	4.0	23.0	0.90	2.4	65
	3	0.52	0.8	115	2.55	3.9	21.0	1.00	2.3	60
	4	0.42	0.7	142	2.32	3.8	25.0	0.82	2.1	73.5
	5	0.62	1.0	94	2.25	4.1	26.5	0.75	2.5	80
	6	0.42	0.7	142	2.1	3.5	28.5	0.66	2.3	91
	Range	0.42 -0.82	0.7 - 1.1	73.5 - 142	2.1- 2.55	3.5 - 4:2	21 - 28.5	0.66 - 1	2.1 - 2.5	60 - 91
	Mean	0.59	0.88	108.58	2.31	3.92	25.08	0.81	2.35	74.92
	S. D.	± 0.16	± 0.17	± 29.24	± 0.16	± 0.25	± 2.71	+ 0.12	± 0.15	± 11.25
	t				18.887	24.586	6.966	18.631	13.189	10.546
	P				< 1.0*	< 0.01*	< 0.01*	< 0.01**	< 0.01**	< 0.01**

* Significant change compared with basal value :
** Significant change compared with stimulated value



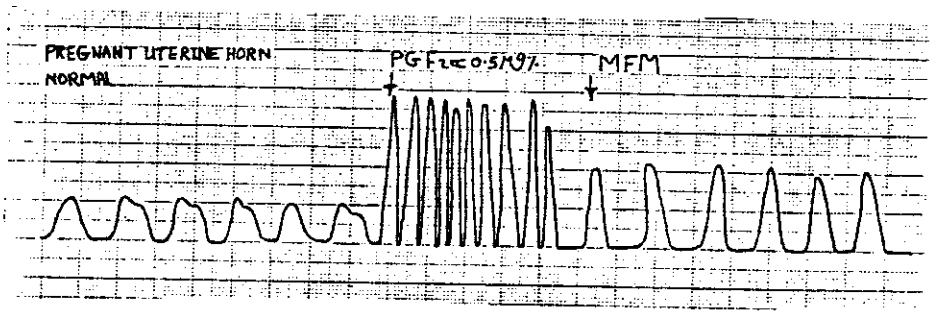
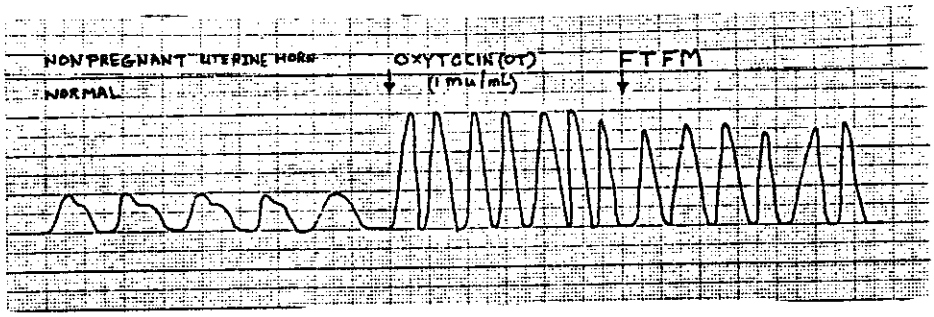


Fig. (13) : Effect MFM on stimulated uterine contraction (uc) of non pregnant by ($PGF_{2\alpha}$ 1μg%) and pregnant ($PGF_{2\alpha}$ 0.5 μg%) rats .

(Table 4) : Effect MFM on stimulated uterine contraction (uc) of non pregnant by ($PGF_{2\alpha}$ 1µg%) and pregnant ($PGF_{2\alpha}$ 0.5 µg%) rats .

	No.	Basal UC			($PGF_{2\alpha}$)			(MFM)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	1.0	0.8	60	1.7	2.0	35	0.92	1.5	64.5
	2	1.8	1.1	75	1.8	2.0	33	0.86	1.3	73.0
	3	0.7	1.5	86	1.9	3.0	31	0.8	1.6	75.0
	4	0.9	1.6	65	1.8	3.5	33	1.0	1.8	60.0
	5	0.8	1.2	75	2.0	3.1	30	0.9	1.3	65.0
	6	1.1	1.0	55	2.1	2.4	28.5	1.3	1.2	46.0
	Range	0.7 - 1.1	0.8 - 1.6	55 - 86	1.7 - 2.1	2.0 - 3.5	28.5 - 35	0.8 - 1.3	1.2 - 1.8	46 - 75
	Mean	0.88	1.2	69.33	1.88	2.67	31.83	0.96	1.45	63 - 92
	S. D.	± 0.15	± 0.30	± 11.43	+ 0.15	± 0.62	+ 2.34	± 0.18	± 0.23	± 10.42
	t				11.767	5.171	7.873	9.765	4.484	7.357
	P				< 0.01*	< 0.01*	< 0.01*	< 0.01**	< 0.01**	< 0.01**
Pregnant Uterine Horn	1	0.63	1.3	95	2.0	3.5	30	0.75	2.0	80
	2	0.51	1.0	117	1.8	3.4	33	0.66	1.9	91
	3	0.72	1.2	84	2.1	3.2	28.5	0.9	2.1	65
	4	0.75	0.9	80	2.3	3.0	25.5	1.0	2.4	60
	5	0.42	1.0	142	1.9	2.9	31.5	0.85	2.2	73.3
	6	0.45	0.8	132	2.1	3.2	28.5	0.9	2.1	65
	Range	0.42 - 0.75	0.8 -1.3	80 - 142	1.8 - 2.3	2.9 - 3.5	25.5 - 33	0.66 -1.0	1.9 -2.4	60 - 91
	Mean	0.58	1.03	108.33	2.03	3.2	29.5	0.84	2.12	72.38
	S. D.	± 0.14	± 0.19	± 25.85	± 0.17	± 0.23	± 2.63	± 0.12	± 0.17	± 11.56
	t				15.866	17.916	7.432	13.960	9.231	8.863
	P				< 0.01*	< 0.01*	< 0.01*	< 0.01**	< 0.01**	< 0.01**

* Significant change compared with basal value :
** Significant change compared with stimulated value



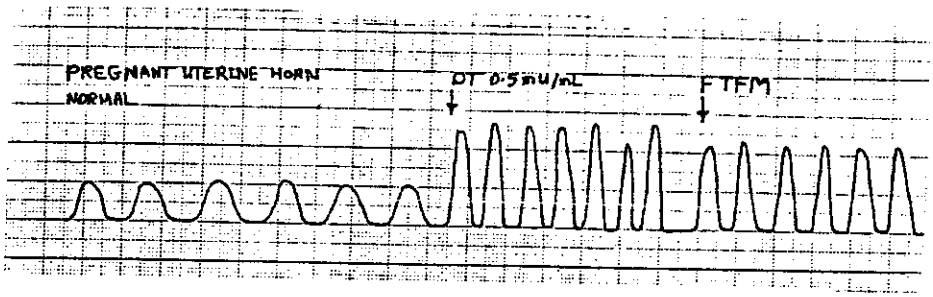
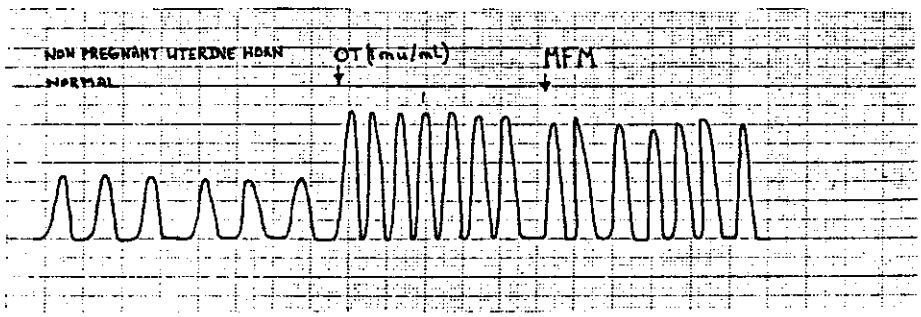


Fig. (14) : Effect FTFM on stimulated uterine contraction (uc) of non pregnant by (OT 1mu/ml) and pregnant (OT 0.5 mu/ml) rats .

(Table 5) : Effect FTFM on stimulated uterine contraction (uc) of non pregnant by (OT 1mu/ml) and pregnant (OT 0.5 mu/ml) rats .

	No.	Basal UC			Oxytocin (OT)			(FTFM)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	0.75	1.0	80	1.13	2.9	53	1.09	2.9	55
	2	0.66	1.1	91	1.29	2.8	46.5	1.17	2.7	51
	3	0.82	1.3	73.5	1.3	3.0	46.0	1.21	2.6	49
	4	1.0	1.0	60	1.41	3.0	42.2	1.31	3.0	45.8
	5	0.75	0.9	60	1.41	3.0	42.2	1.31	2.8	45.8
	6	0.9	0.7	80	1.5	3.0	53.0	1.25	3.0	55
	Range	0.66 -1.0	0.7 - 1.3	60 - 91	1.13 -1.5	2.8 - 3.0	42.2 -53	1.09 - 1.31	2.6 - 3.0	45.8 - 55
	Mean	0.81	1.0	74.08	1.34	2.95	47.15	1.22	2.83	50.27
	S. D.	± 0.12	± 0.2	± 12.27	± 0.13	± 0.08	± 4.88	± 0.09	± 0.16	± 4.17
	t				7.268	22.023	4.994	1.844	1.557	1.189
	P				< 0.01*	< 0.01*	< 0.01*	> 0.05**	> 0.05**	> 0.05**
Pregnant Uterine Horn	1	0.55	1.0	110	1.45	2.5	41.25	1.32	2.3	45.43
	2	0.44	1.1	135	1.3	2.1	46.00	1.23	2.0	48.5
	3	0.3	0.9	200	1.5	2.5	40.00	1.45	2.4	41.25
	4	0.6	1.3	100	1.6	2.0	37.40	1.55	1.9	39.3
	5	0.52	1.4	115	1.45	2.5	41.25	1.3	2.0	46.0
	6	0.45	1.2	132	1.2	2.3	50.00	1.18	2.1	50.3
	Range	0.3 - 0.6	0.9 - 1.4	100 - 200	1.2 - 1.6	2.0 - 2.5	37.4 - 50	1.18 - 1.55	1.9 - 2.4	39.3 - 50.3
	Mean	0.48	1.15	132	1.42	2.32	42.65	1.34	2.12	45.11
	S. D.	± 0.11	± 0.19	± 35.86	± 0.14	± 0.22	± 4.55	± 0.14	± 0.19	± 0.24
	t				12.909	9.821	6.054	0.961	1.658	0.974
	P				< 0.01*	< 0.01*	< 0.01*	> 0.05**	> 0.05**	> 0.05**

* Significant change compared with basal value :
** Insignificant change compared with stimulated value



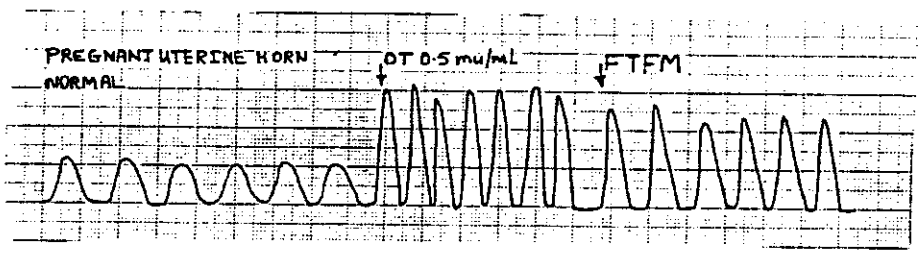


Fig. (15) : Effect MFM on stimulated uterine contraction (uc) of non pregnant by (OT 1mu/ml) and pregnant (OT 0.5 mu/ml) rats .

(Table 6) : Effect MFM on stimulated uterine contraction (uc) of non pregnant by (OT 1mu/ml) and pregnant (OT 0.5 mu/ml) rats .

	No.	Basal UC			Oxytocin (OT)			(MFM)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	0.75	1.7	80	1.08	3.5	55.7	1.05	3.5	57.0
	2	0.85	1.6	73	1.12	4.0	54.0	1.02	3.9	58.5
	3	0.66	1.4	91	0.9	3.8	55.0	1.0	3.8	60.0
	4	0.9	1.1	65	1.28	4.1	47.0	1.1	4.0	55.0
	5	1.0	0.9	60	1.4	2.6	42.6	1.22	2.4	48.8
	6	0.9	1.0	65	1.28	3.0	47.5	1.1	2.9	55.0
	Range	0.66 - 1.0	0.9 - 1.7	60 -91	0.9 - 1.4	2.6 - 4.1	42.6 - 65	1.0 - 1.22	2.4 - 4.0	48.8 - 60
	Mean	0.84	1.28	72.38	1.18	3.5	51.97	1.08	3.42	55.72
	S. D.	± 0.12	± 0.33	± 11.56	± .18	± 0.59	± 8.0	± 0.08	± 0.64	± 3.91
	t				3.777	7.991	3.557	1.189	0.234	1.030
	P				< 0.05*	< 0.01*	< 0.05*	> 0.05**	> 0.05**	> 0.05**
Pregnant Uterine Horn	1	0.71	1.0	85	1.45	3.0	41.25	1.2	2.8	50
	2	0.83	0.8	73.4	1.65	3.1	37.0	1.45	3.0	41.25
	3	0.88	0.9	68	1.75	2.9	34.1	1.55	2.7	39.25
	4	0.66	1.1	91	1.85	2.8	32.0	1.65	2.6	37
	5	0.92	1.2	64.5	1.65	3.2	37.0	1.45	3.1	41.25
	6	1.0	1.3	60	1.95	3.1	30.5	1.75	2.9	34.1
	Range	0.66 - 1.0	0.8 - 1.3	60 - 91	1.45 - 1.95	2.8 - 3.2	30.5 - 41.25	1.2 -1.75	2.6 - 3.1	34.1 - 50
	Mean	0.83	1.05	73.65	1.72	3.02	35.31	1.51	2.85	40.47
	S. D.	± 0.13	± 0.19	± 12.1	± 0.17	± 0.15	± 3.91	± 0.19	± 0.19	± 5.41
	t				9.958	20.237	7.386	1.870	1.715	1.806
	P				< 0.01*	< 0.01*	< 0.01*	> 0.05**	> 0.05**	> 0.05**

* Significant change compared with basal value :
** Insignificant change compared with stimulated value

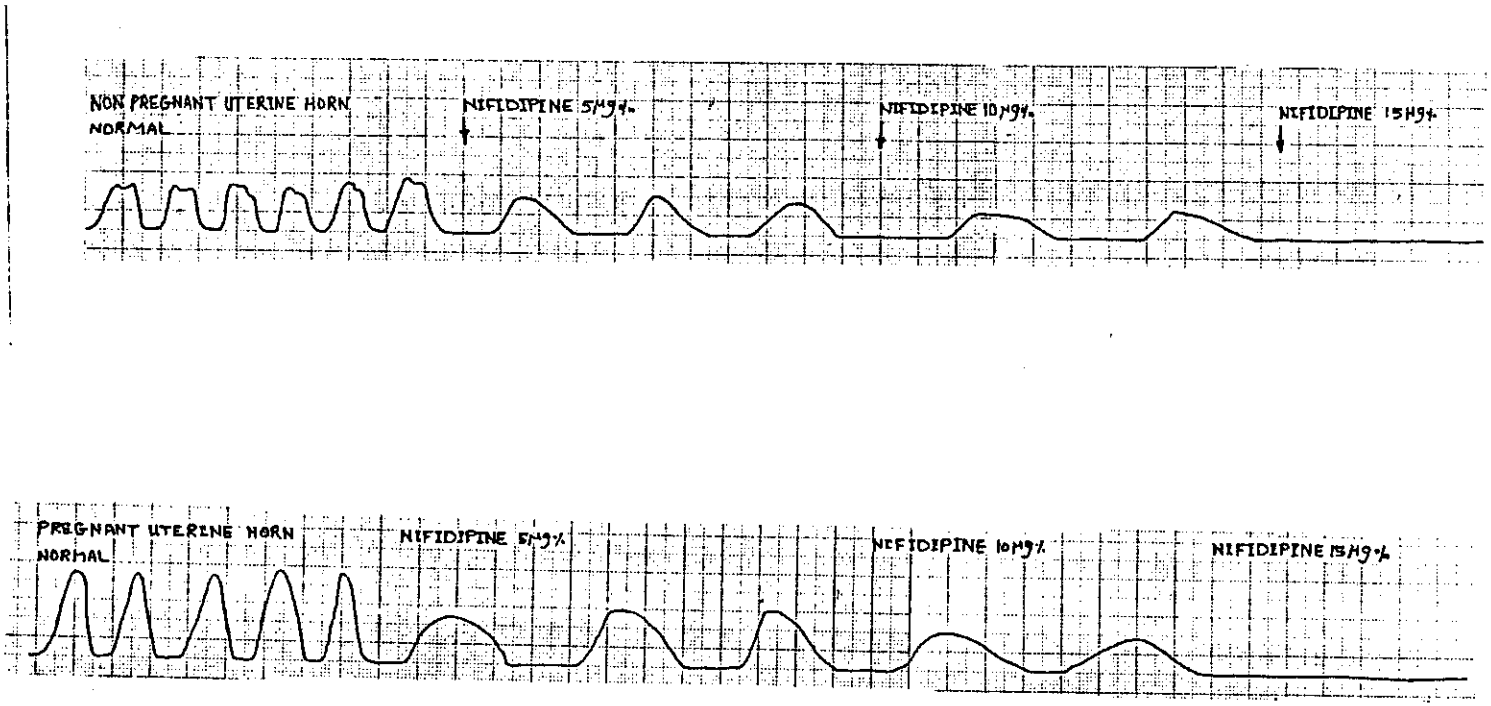


Fig. (16) : Effect of Calcium Channel Blocker (Nifidipine 5 µg%, 10 µg% and 15 µg%) on basal uterine contraction (uc) of non pregnant and pregnant rats .

(Table 7) : Effect of Calcium Channel Blocker (Nifidipine 5 µg%, 10 µg% and 15 µg%) on basal uterine contraction (uc) of non pregnant and pregnant rats .

	No.	Basal UC			CCB (Nifidipine 5 µg%)			CCB (Nifidipine 10 µg%)			CCB (Nifidipine 15 µg%)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	0.52	1.4	115	0.3	0.97	200	0.2	0.7	300	0.0	0.0	0.0
	2	0.61	1.6	98	0.4	0.90	150	0.31	0.9	185	0.0	0.0	0.0
	3	0.43	1.1	138	0.21	0.1	300	0.25	0.6	240	0.0	0.0	0.0
	4	0.72	1.6	84	0.49	1.2	125	0.35	0.8	170	0.0	0.0	0.0
	5	0.81	1.7	74.5	0.59	1.1	103	0.19	0.5	315	0.0	0.0	0.0
	6	0.76	1.4	78	0.51	1.3	117	0.24	0.7	260	0.0	0.0	0.0
	Range	0.43 - 0.81	1.1 - 1.7	74.5 138	0.21 - 0.59	0.9 - 1.3	103 - 300	0.19 -0.35	0.5 - 0.9	170 -315	0.0	0.0	0.0
	Mean	0.64	1.47	97.92	0.42	1.08	165.83	0.26	0.7	245	0.0	0.0	0.0
	S. D.	± 0.15	± 0.22	± 24.65	± 0.14	± 0.15	± 74.05	± 0.06	± 0.14	± 58.99	± 0.0	± 0.0	± 0.0
	t				2.690	3.609	2.132	5.880	7.273	5.635	0.0	0.0	0.0
	P				< 0.05*	< 0.05*	< 0.05*	< 0.01**	< 0.01**	< 0.01**	0.0	0.0	0.0
Pregnant Uterine Horn	1	0.57	2.39	105	0.3	1.6	200	0.2	1.2	300	0.0	0.0	0.0
	2	0.52	2.31	115	0.21	1.4	300	0.31	0.8	185	0.0	0.0	0.0
	3	0.61	2.4	98	0.49	1.3	125	0.35	1.1	170	0.0	0.0	0.0
	4	0.43	2.0	138	0.4	1.7	150	0.19	0.9	315	0.0	0.0	0.0
	5	0.72	2.7	84	0.51	0.9	117	0.35	1.5	170	0.0	0.0	0.0
	6	0.76	2.6	78	0.59	1.1	103	0.45	1.5	132	0.0	0.0	0.0
	Range	0.43 - 0.76	2.0 - 2.7	78 - 138	0.21- 0.59	0.9 - 1.9	103 -300	0.19 - 0.45	0.8 - 1.5	132 - 315	0.0	0.0	0.0
	Mean	0.60	2.4	103	0.42	1.33	165.83	0.31	1.17	212	0.0	0.0	0.0
	S. D.	± 0.12	± 0.24	± 21.83	± 0.14	± 0.3	± 74.05	± 0.1	± 0.29	± 76.2	± 0.0	± 0.0	± 0.0
	t				2.408	6.739	1.993	4.534	7.898	3.369	0.0	0.0	0.0
	P				< 0.05*	< 0.01*	< 0.05*	< 0.01**	< 0.01**	< 0.05 **	0.0	0.0	0.0

* Significant change compared with basal value :
** Significant change compared with basal value :

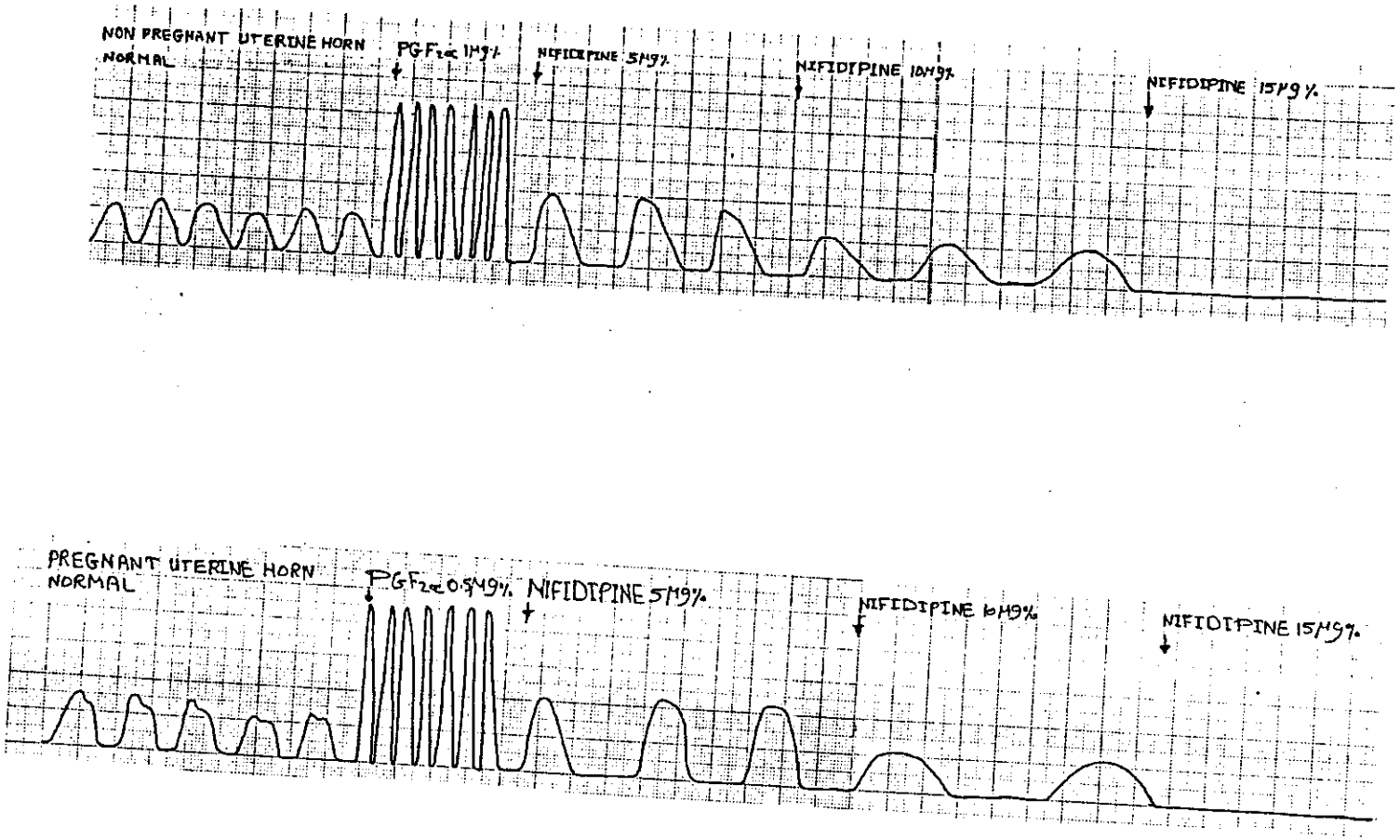


Fig. (17) : Effect of Calcium Channel Blocker (Nifidipine 5 , 10 and 15 μg%) on stimulated uterine contraction (uc) by ($PGF_{2\alpha}$ 1 μg%) of non pregnant and ($PGF_{2\alpha}$ 0.5 μg%) pregnant rats.

(Table 8) : Effect of Calcium Channel Blocker (Nifidipine 5 , 10 and 15 µg%) on stimulated uterine contraction (uc) by ($PGF_{2\alpha}$ 1 µg%) of non pregnant and ($PGF_{2\alpha}$ 0.5 µg%) pregnant rats

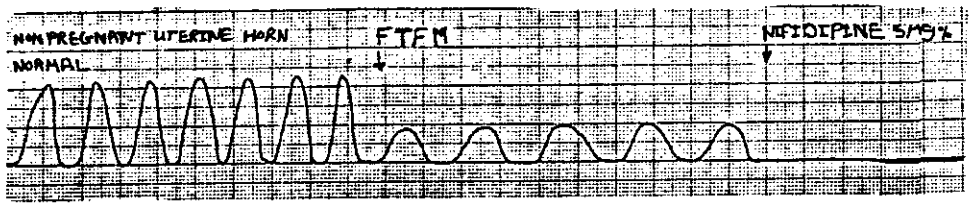
	No.	Basal UC			($PGF_{2\alpha}$)			CCB (Nifidipine 5 µg%)			CCB (Nifidipine 10 µg%)			CCB (Nifidipine 15 µg%)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	0.6	1.25	100	2.0	4.5	30	0.44	1.85	135	0.33	1.37	180	0.0	0.0	0.0
	2	0.7	1.3	86	1.9	3.8	31.5	0.42	1.7	142	0.30	1.23	200	0.0	0.0	0.0
	3	0.8	1.2	75	2.3	4.3	25.5	0.62	2.0	96	0.29	1.2	210	0.0	0.0	0.0
	4	0.5	1.7	120	1.8	3.5	33	0.31	1.5	185	0.28	1.1	220	0.0	0.0	0.0
	5	0.8	1.8	75	2.3	4.8	25.5	0.52	2.0	115	0.34	1.1	178	0.0	0.0	0.0
	6	0.9	1.6	65	2.4	4.9	23.5	0.76	2.1	78	031	1.0	185	0.0	0.0	0.0
	Range	0.5 - 0.9	1.2 - 1.8	65 - 120	1.8 - 2.4	3.5 - 4.9	23.5 - 33	0.31 - 0.76	1.5 - 2.1	78 - 185	0.28 - 0.34	1.0 - 1.37	178 - 220	0.0	0.0	0.0
	Mean	0.72	1.47	86.83	2.12	4.3	28.17	0.51	1.86	125.17	0.31	1.17	195.5	0.0	0.0	0.0
	S. D.	± 0.15	± 0.26	± 20.15	± 0.25	± 0.55	± 3.84	± 0.16	± 0.22	± 37.78	± 0.02	± 0.13	± 17.25	0.0	0.0	0.0
	t				11.879	11.319	7.004	13.313	9.990	6.256	17.760	13.471	23.195	-	-	-
	P				< 0.01*	< 0.01*	< 0.01*	< 0.01**	< 0.01**	< 0.01**	< 0.01#	< 0.01#	< 0.01#	-	-	-
Pregnant Uterine Horn	1	0.67	1.7	90	1.66	4.5	36.67	0.38	2.23	160	0.25	1.82	240	0.0	0.0	0.0
	2	0.42	1.3	142	1.6	4.0	37.4	0.31	2.17	185	0.31	1.88	185	0.0	0.0	0.0
	3	0.75	1.1	80	1.5	4.5	40.0	0.34	2.00	178	0.15	0.8	410	0.0	0.0	0.0
	4	0.63	2.0	95	1.7	3.8	35.0	0.28	2.30	220	0.30	1.0	200	0.0	0.0	0.0
	5	0.51	1.9	117	1.7	4.2	35.0	0.39	2.60	155	0.19	0.8	315	0.0	0.0	0.0
	6	0.45	1.6	132	1.55	3.9	39.25	0.28	2.10	220	0.16	0.9	369	0.0	0.0	0.0
	Range	0.42 - 0.75	1.1 - 2.0	80 - 142	1.5 - 1.7	3.8 - 4.5	35 - 40	0.28 - 0.39	2.0 - 2.6	155 - 220	0.15 - 0.31	0.8 - 1.88	185 - 410	0.0	0.0	0.0
	Mean	0.75	1.6	109.33	1.62	4.15	37.22	0.33	2.23	186.33	0.23	1.2	286.95	0.0	0.0	0.0
	S. D.	± 0.13	± 0.35	± 24.82	± 0.08	± 0.3	± 2.1	± 0.05	± 0.21	± 28.33	± 0.07	± 0.51	± 92.54	0.0	0.0	0.0
	t				16.510	13.596	7.092	33.01	12.824	12.85	31.484	12.824	6.597	-	-	-
	P				< 0.001*	< 0.01*	< 0.01*	< 0.001**	< 0.01**	< 0.01**	< 0.001#	< 0.01#	< 0.01#	-	-	-

* Significant change compared with basal value :
** Significant change compared with stimulated value :
\# Significant change compared with stimulated value

(Table 9) : Effect of Calcium Channel Blocker (Nifidipine 5 , 10, 15 and 20 µg%) on stimulated uterine contraction (uc) by (OT 1 mu/ml) of non pregnant and (OT 0.5 mu/ml) pregnant rats

	No.	Basal UC			Oxytocin (OT)			CCB (Nifidipine 5 µg%)			CCB (Nifidipine 10 µg%)			CCB (Nifidipine 15 µg%)			CCB (Nifidipine 20 µg%)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	0.45	1.25	132	1.33	2.51	45	0.83	1.55	73.4	0.67	1.28	90	0.33	1.0	180	0.0	0.0	0.0
	2	0.44	1.2	135	1.32	2.19	45.43	0.8	1.5	75	0.63	1.22	95	0.3	1.37	200	0.0	0.0	0.0
	3	0.62	1.3	96	1.3	2.2	76.2	0.9	1.6	65	0.51	1.3	117	0.29	1.23	210	0.0	0.0	0.0
	4	0.76	1.45	78	1.55	1.9	39.25	1.0	1.7	60	0.42	1.4	142	0.28	1.2	220	0.0	0.0	0.0
	5	0.42	1.3	142	1.18	2.1	52.5	0.7	1.45	86	0.45	1.3	132	0.34	1.2	178	0.0	0.0	0.0
	6	0.61	1.1	98	1.45	2.0	41.25	0.73	1.4	83	0.75	1.5	80	0.31	1.0	185	0.0	0.0	0.0
	Range	0.42 - 0.76	1.1 - 1.45	78 -142	1.18 -1.55	1.9 - 2.51	39.25 - 52.5	0.7 - 1	1.4 - 1.7	60 - 86	0.42 - 0.75	1.22 - 1.5	80 - 142	0.28 - 0.34	1.0 - 1.37	178 - 220	0.0	0.0	0.0
	Mean	0.55	1.27	113.5	1.35	2.15	44.94	0.83	1.53	44.94	0.57	1.33	109.33	0.31	1.17	195.5	0.0	0.0	0.0
	S. D.	± 0.13	± 0.12	± 26.17	± 0.13	± 0.21	± 4.58	± 0.11	± 0.11	± 4.58	± 0.13	± 0.11	± 24.82	± 0.02	± 0.17	± 17.25	0.0	0.0	0.0
	t				10.566	8.992	6.322	7.624	6.388	6.397	10.436	8.587	6.250	19.630	9.457	20.665	-	-	-
	P				< 0.01*	< 0.01*	< 0.01*	< 0.01**	< 0.01**	< 0.01**	< 0.01#	< 0.01#	< 0.01#	< 0.001##	< 0.01##	< 0.001##	-	-	-
Pregnant Uterine Horn	1	0.53	1.31	114	1.78	3.5	33.75	0.5	2.1	120	0.38	1.69	160	0.25	1.1	240	0.0	0.0	0.0
	2	0.61	1.49	98	1.84	3.3	32.57	0.62	2.0	96	0.34	1.35	178	0.16	1.2	369	0.0	0.0	0.0
	3	0.43	1.0	138	1.58	3.0	38.57	0.61	1.8	98	0.39	1.0	155	0.3	1.4	200	0.0	0.0	0.0
	4	0.72	1.5	84	1.59	3.1	31.76	0.63	1.6	95	0.31	1.22	185	0.31	1.6	185	0.0	0.0	0.0
	5	0.76	1.4	78	2.0	3.5	30.0	0.56	2.0	108	0.28	1.4	220	0.15	1.0	410	0.0	0.0	0.0
	6	0.52	1.2	115	1.67	2.9	36.0	0.55	1.9	110	0.28	1.6	220	0.19	1.0	315	0.0	0.0	0.0
	Range	0.43 - 0.76	1.0 - 1.5	78 - 138	1.58 - 2.0	2.9 - 3.5	30.0 - 38.57	0.5 - 0.63	1.6 - 2.1	95 - 120	0.28 - 0.39	1.0 - 1.69	155- 220	0.15 - 0.31	1.0 - 1.6	185 - 410	0.0	0.0	0.0
	Mean	0.59	1.32	104.5	1.79	3.22	33.78	0.58	1.9	104.5	0.33	1.38	186.33	0.23	1.22	286.5	0.0	0.0	0.0
	S. D.	± 0.13	± 0.19	± 22.3	± 0.15	± 0.26	± 3.09	± 0.05	± 0.18	± 9.87	± 0.05	± 0.25	± 28.33	± 0.07	± 0.24	± 92.54	0.0	0.0	0.0
	t				14.853	14.532	7.694	18.614	10.320	16.744	22.514	12.558	13.112	22.961	13.950	6.686	-	-	-
	P				< 0.001*	< 0.001*	< 0.01*	< 0.001**	< 0.01**	< 0.001**	< 0.001#	< 0.001#	< 0.001#	< 0.001##	< 0.001##	< 0.01##	-	-	-

* Significant change compared with basal value :
** Significant change compared with stimulated value :
# Significant change compared with stimulated value
Significant change compared with stimulated value



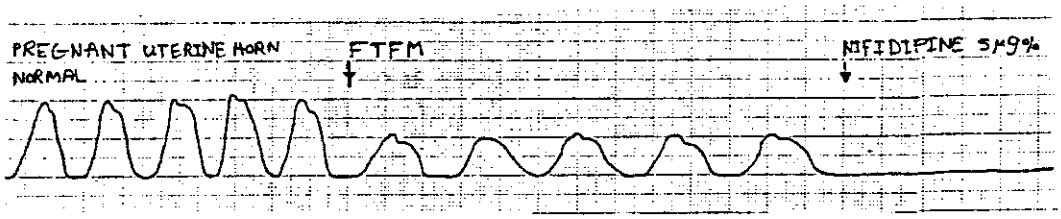


Fig. (19) : Effect FTFM and Calcium Channel Blocker (Nifidipine 5 μg%) on basal uterine con traction (uc) of non pregnant and pregnant rats .

(Table 10) : Effect FTFM and Calcium Channel Blocker (Nifidipine 5 µg%) on basal uterine con traction (uc) of non pregnant and pregnant rats .

	No.	Basal UC			(FTFM)			Calcium Channel Blocker (Nifidipine 5 µg%)		
		(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)	(F/min)	(A cm)	(D sec)
Non Pregnant Uterine Horn	1	0.67	2.0	90.0	0.5	1.00	120.0	0.0	0.0	0.0
	2	0.90	2.1	65.0	0.6	1.1	100.0	0.0	0.0	0.0
	3	1.00	2.3	60.0	0.7	1.2	86.00	0.0	0.0	0.0
	4	0.6	1.9	10.0	0.3	0.7	200.0	0.0	0.0	0.0
	5	0.8	1.9	75.0	0.4	0.9	150.0	0.0	0.0	0.0
	6	0.9	2.0	65.0	0.8	1.1	75.00	0.0	0.0	0.0
	Range	0.6 -1.0	1.9 - 2.3	60 - 100	0.3 - 0.8	0.7 - 1.2	75 - 200	0.0	0.0	0.0
	Mean	0.81	2.03	75.83	0.55	1.00	121.83	0.0	0.0	0.0
	S. D.	±0.15	±0.15	±15.94	± 0.19	± 0.18	± 46.61	± 0.0	± 0.0	± 0.0
	t				2.656	10.826	2.287	0.0	0.0	0.0
	P				< 0.05*	< 0.01*	< 0.05*	0.0	0.0	0.0
Pregnant Uterine Horn	1	0.52	1.4	115	0.3	0.97	200	0.0	0.0	0.0
	2	0.61	1.6	98	0.4	0.9	150	0.0	0.0	0.0
	3	0.43	1.1	138	0.21	1.0	300	0.0	0.0	0.0
	4	0.72	1.6	84	0.49	1.2	125	0.0	0.0	0.0
	5	0.81	1.7	74.5	0.59	1.1	103	0.0	0.0	0.0
	6	0.76	1.4	78	0.51	1.3	117	0.0	0.0	0.0
	Range	0.43 - 0.81	1.1 - 1.7	74.5 - 138	0.21 - 0.59	0.9 - 1.3	103 - 300	0.0	0.0	0.0
	Mean	0.64	1.47	97.92	0.42	1.08	165.83	0.0	0.0	0.0
	S. D.	+ 0.15	± 0.22	± 24.65	± 0.14	± 0.15	± 74.05	± 0.0	± 0.0	± 0.0
	t				2.690	3.609	2.132	0.0	0.0	0.0
	P				< 0.05*	< 0.05*	< 0.05*	0.0	0.0	0.0

* Significant change compared with basal value :