RESULTS

Table (1): Age and parity of the patients:

In comparing the clinical data for the two study groups, it was found that, there was no statistically significant difference between the two groups as regard to age and parity.

	Ritodrine (n=30) Mean ± S.D.	Nitroglycerin (n=30) Mean ± S.D.	T. test	P. value
Age	**27.7 ± 3.6**	**26.6 ± 4.3**	**0.30**	**N.S**
Parity	**1.1 + 1.06**	**1.03 ± 0.99**	**0.80**	**N.S**

N.S. : Non significant

Table (2): Cervical dilatation of the patients on admission:

Clinical assessment of the condition of cervix on admission, revealed that the difference between the two groups was statistically non significant.

Cervical dilatation	Ritodrine		Nitroglycerin		X^2	P. value
	N.	%	N.	%		
≤ 2 cm	24	80	19	63.3	0.581	N.S
3 cm, 4 cm	6	20	11	36.7	1.471	N.S
Total	30	100	30	100		

N.S. : Non significant

Table (3): Cervical effacement of the patients on admission :

Cervical effacement was variable in all patients and was ranging between 30-70%. It was found that, the difference in cervical effacement between the two groups was statistically non significant. From these data, it was proved that the two groups were matching and the randomisation process was adequate.

% Of effacement	Ritodrine		Nitroglycerin		X^2	P. value
	N.	%	N.	%		
≤ 30	10	33.3	15	50	1.000	N.S
≥ 40	20	66.7	15	50	0.714	N.S
Total	30	100	30	100		

N.S. : Non significant

Table (4) : Bishop score of the patients on admission:

Table (4) shows Bishop score of the two groups as measured on admission and it shows non significant difference between the two groups.

Bishop score	Ritodrine		Nitroglycerin		X^2	P. value
	N.	%	N.	%		
≤ 5	21	70	23	76.7	0.091	N.S
> 5	9	30	7	23.3	0.250	N.S
Total	30		30			

N.S. : Non significant

Table (5): The effect of ritodrine and nitroglycerin on uterine activity:

Successful suppression of labour was defined as stopping uterine contractions for 48 hours after onset of treatment.

It was found that ritodrine was successful in suppressing uterine contractions in 26 patients (86.7%) and the other 4 cases (13.3%) were not responding to the therapy where progressive cervical dilatation occurred and the patients delivered prematurely.

Nitroglycerin was successful in suppressing uterine contractions in 25 cases (83.4%) and failed in 5 cases (16.6%) and they also delivered prematurely.

This difference in the effectiveness of both drugs was found to be statistically non significant.

	Ritodrine		**Nitroglycerin**		**U test**	**P.value**
	N.	**%**	**N.**	**%**		
Success	**26**	**86.7**	**25**	**83.4**	**435.00**	**N.S**
Failure	**4**	**13.3**	**5**	**16.6**		
Total	**30**		**30**			

N.S. : Non significant

Table (6): Correlation between age and efficacy of tocolytic therapy:

Table (6) shows that there is non significant correlation between age and efficacy of tocolytic therapy.

Age (years)	< 30		≥ 30		X^2	P. Value
	N.	%	N.	%		
Total	42	70	18	30		
Failure	8	13.3	1	1.7	1.799	N.S.

N.S. : Non significant

Table (7) : Correlation between parity and efficacy of tocolytic therapy:

Table (7) shows that there is non significant correlation between parity and efficacy of tocolytic therapy.

Parity	Primipara		Multipara		X^2	P. Value
	N.	%	N.	%		
Total	22	36.7	38	63.3		
Failure	2	9.1	7	18.4	0.951	N.S.

N.S. : Non significant

Table (8) : Correlation between Bishop score and efficacy of tocolytic therapy:

The correlation between Bishop score and efficacy of tocolytic therapy was significant. It was found that when Bishop score was less than or equal 5 the success of tocolysis was 100%, on the other hand when Bishop score was more than 5 the tocolytic therapy was successfull in only 43.7% of cases.

Bishop scroe	≤ 5		> 5		X^2	P. Value
	N.	%	N.	%		
Total	**44**	**73.34**	**16**	**26.66**		
Failure	**0**	**0**	**9**	**56.3**	**29.118**	**P < 0.05 (S.)**

S.: Significant

Table (9): Correlation between gestational age and efficacy of tocolytic therapy:

The correlation between gestational age and efficacy of tocolytic therapy was significant. It was found that when gestational age was between 28 – 30 weeks the success of tocolysis was 100%, and when it was between 31 – 34 weeks the tocolytic therapy was successful in only 23.1% of cases.

Gestational age	28 – 30		31 - 34		X^2	P. Value
	N.	%	N.	%		
Total	21	35	39	65		
Failure	0	0	9	23.1	5.701	P < 0.05 (S.)

S. :Significant

Table (10): Cardiovascular effects of ritodrine and nitroglycerin:

There were significant differences regarding the effects of the two treatment regimens on the cardiovascular system (Table 10).

1- Maternal heart rate: (MHR):

In ritodrine treated patients there was an increase in the maternal heart rate, which was the most common side effect and the mean increase was 16.9 beats/ minute.

The mean increase in heart rate in nitroglycerin treated patients was 3.7 beats / minutes.

There was a significant difference between the two groups as regarding increase in maternal heart rate ($p < 0.05$).

2- Fetal heart rate (FHR):

A similar increase in fetal heart rate was noted with ritodrine therapy, with a mean increase 13.87 beats/ minute while nitroglycerin therapy showed decrease in fetal heart rate with a mean decrease 7.4 beat/ minute. There is also significant difference between the two groups ($p < 0.05$).

3- Systolic blood pressure:

With ritodrine therapy there was a significant decrease in systolic blood pressure but there was more reduction in systolic

blood pressure with nitroglycerin and this shows significant difference between the two groups.

4. Diastolic blood pressure:

It was found that there was a significant decrease in diastolic blood pressure in ritodrine group and there was a significantly higher decrease in diastolic blood pressure in nitroglycerin group.

	Ritodrine	Nitroglycerine	T.test	P.value
	Mean ± S.D.	Mean ± S.D.		
Maternal heart rate	**+16.90 ± 5.16**	**+3.70 ± 3.55**	**11.578**	**P < 0.05 S.**
Systolic blood pressure	**-4.33 ± 5.04**	**- 12.67 ± 6.40**	**5.45**	**P < 0.05 S.**
Diastolic blood pressure	**- 5.67 ± 5.04**	**- 11.67 ± 4.61**	**1.27**	**P < 0.05 S.**
Fetal heart rate.	**+13.87 ± 4.49**	**- 7.40 ± 3.20**	**6.38**	**P < 0.05 S.**

S. :Significant

Table (11): Side effects of ritodrine and nitroglycerin:

It was found that the main side effects met with ritodrine was palpitation. The non significant side effects occurring with ritodrine were headache, nausea, nervousness and restlessness.

The main side effects occurring with nitroglycerin were headache and palpitation. The non significant side effects of nitroglycerin were flushing, nausea, emesis, dizziness and restlessness.

	Ritodrine		Nitroglycerin		U. test	P.value
	N.	%	N.	%		
Headache	**2**	**6.6**	**28**	**93.3**	**60.000**	**P < 0.05 S.**
Flushing	**-**	**0**	**2**	**6.6**	**420.000**	**N.S**
Palpitation	**23**	**76.6**	**6**	**20**	**195.000**	**P < 0.05 S.**
Nausea	**1**	**3.3**	**2**	**6.6**	**435.000**	**N.S.**
Vomitting	**-**	**0**	**2**	**6.6**	**420.000**	**N.S**
Dizziness	**3**	**10**	**1**	**3.3**	**420.00**	**N.S**
Nervousness	**1**	**3.3**	**-**	**0**	**435.00**	**N.S**
restlessness	**2**	**6.6**	**1**	**3.3**	**435.00**	**N.S.**

S.: Significant **N.S. : Non significant**