RESULTS

A Total number of 60 patients complaining of stress urinary incontinence were included in this study . They were randomly divided into two groups :

- **Group I :** Thirty patients were candidate for TVT secur.
- **Group II :** Thirty patients were candidate for TVT

The age of the patient in group I from 22-60 years ; with an average of (±SD) 39.8 (± 11.1) years .

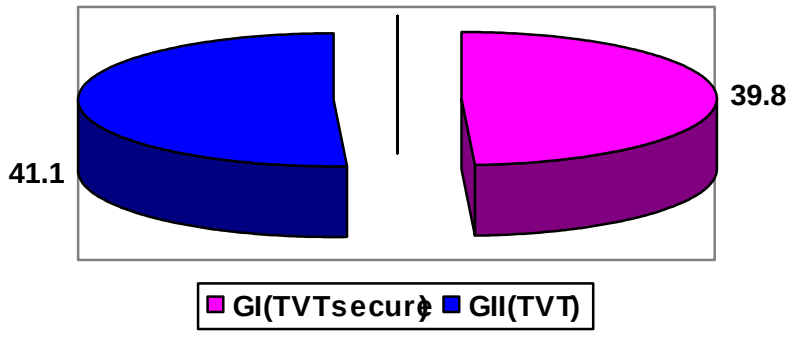
The age of the patients in group II ranged from 25-62 years ; with an average of (± SD) 41.1 (± 10.1)years **.(Table 1) & (Fig 47)**

(Table1): Mean and standard deviation of age distribution between 2 groups.

Parameter	*Group*	*Mean ± SD*	*Range*	*t*	*P*
Age	I	39.8±11.1	22-60	0.475	>0.05
	II	41.1±10.1	25-62		

This Table showed that there was insignificant difference between the studied group regarding the age (P value > 0.05)

(Fig 47) : Age distribution between two groups .



The mean number of vaginal deliveries (± SD) in Group I was 3.9 ± 2.1 with a range of 1-8 where as the mean number of vaginal deliveries to (± SD) in group II was 4.03 ± 2.5 with a range of 0-9 deliveries.

The range of caesarian section (CS) in group I was 0-2 and 0-1 in group II

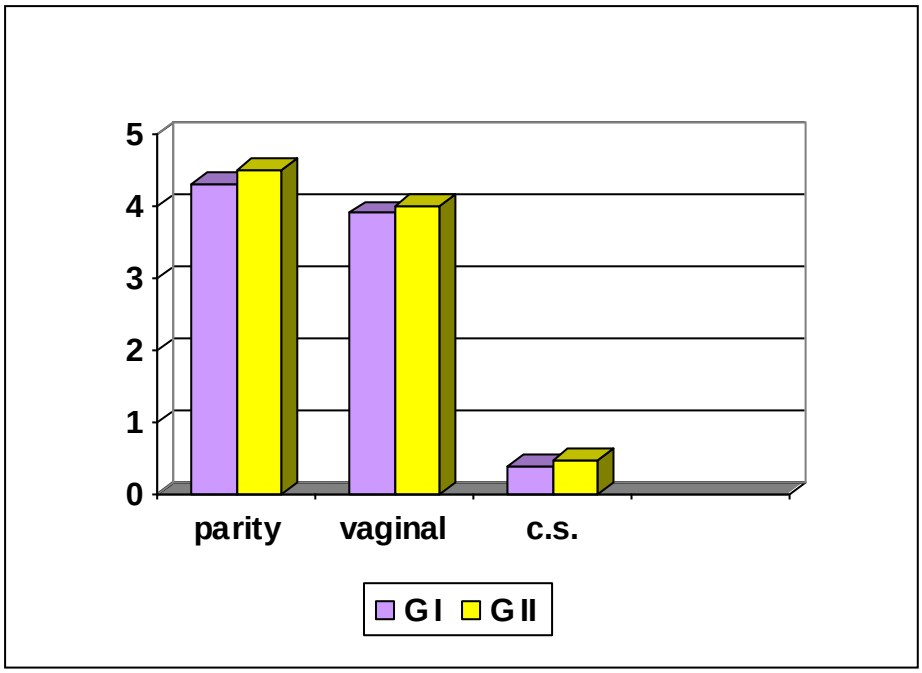
The mean number of Parity (±SD) in group I was 4.3 ± 2.32 with arange of 1-8 where as the mean number of parity (± SD) in group II was 4.5 ± 2.53 with arange of 1-9 **(table 2) & (fig 48)**

Table (2) : parity vaginal delivery and caesarian section in the studied groups .

Parameter	***Group***	***Mean ± SD***	***Range***	***t***	***P***
Parity	I	4.3 ± 2.32	1-8	0.319	>0.5
	II	4.5 ± 2.53	1-9		
Vaginal delivery	I	3.9 ± 2.1	1-8	0.223	>0.05
	II	4.03 ± 2.5	0-9		
CS	I	0.40 ± 0.56	0-2	0.482	>0.05
	II	0.47 ± 0.51	0-1		

This table showed that there was insignificant difference between the studied groups regarding parity and the mode of delivery (P value > 0.05) .

(Fig 48) **:** mean of parity , vaginal and CS deliveries in both groups**.**



Associated preoperative urinary infection was presented in 4 cases in group II and was treated according to culture and sensitivity before surgery .

A-Preoperative evaluation :

The severity of SUI was evaluated clinically by using stamey's grading system where:

Grade 1: Leakage only with sever stress such as coughing or laughing.

Grade II: Leakage with moderate activity such as walking or running

Grade III: Total urinary incontinence without relation to physical activity

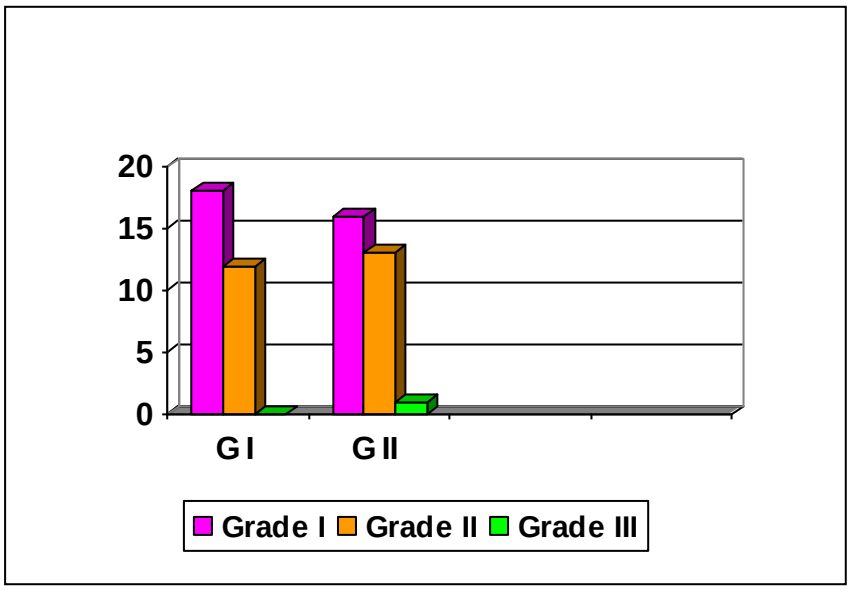
Grade I was detected in 18 case in group I (60%) and 16 cases in group II (53.4) while 12 cases in group I (40%) and 13 cases in group II (43.3) classified as grade II SUI and 0 cases in group I (0%) and 1 cases in group II (3.3) classified as grade III SUI according to stamy's grading system ***(Table 3) &(fig 49).***

Table (3): *Grades of SUI according to stamy's grading system .*

Grade	Group				Z	P
	Group I (TVT secur)		Group II (TVT)			
	No	%	No	%		
Grade I	18	60.0	16	53.4	0.52	> 0.05
Grade II	12	40.0	13	43.3	0.26	> 0.05
Grade III	0	0.00	1	3.3	1.01	> 0.05
Total	30	100.0	30	100.0	-	

This table shows that there was insignificant difference between the two groups regarding the grade of SUI (P value >0.05)

(fig 49) : Grades of SUI in two groups



The duration of SUI per years calculated , the mean of it was 2.8 ±1.33 in group I and 3.4 ± 1.8 in group II **(table 4).**

Table (4): Mean and standard deviation of preoperative duration of S.U.I

Premater	Group	mean ± SD	Range	t	P
Duration of SUI per years	G I (TVT secur	2.8±1.33	1-5	1.63	>0.05
	GII(TVT)	3.4±1.8	1-7		

This table showed that these was insignificant difference regarding the duration of preoperative S.U.I in both groups (P value > 0.05)

B- Preoperative clinical parameters:

Postmenpausal state found in 11 patients (36.71) in group I and 10 Patients (33.3%) in group II. It was statistically insignificant (P value >0.05) **(table 5).**

***Table (5)* :** Menstruation among the two groups:

Parameter	***Group***				***Z***	***P***
	Group I (TVT secur)		***Group II (TVT)***			
	No	%	No	%		
Postmenopausal	11	36.7	10	33.3	0.27	>0.05
Premenopasual	19	63.3	20	66.7	0.27	>0.05
Total	30	100.0	30	100.0	--	

We had 27 cases in group I and 26 cases in group II classified as grade I cystocele one case in group I and 2 cases in group II classified as grade II cystocele there was 2 cases in each group with no cystocele elicited ***(Table 6) .***

(table 6) : The preoperative cystocele grade in studied groups **.**

	Group I (Tvt secur)	***Group II (TVT)***
No cystocele	2 (6.7 %)	2 (6.7 %)
Grade I	27 (90 %)	26 (86.6 %)
Grade II	1 (3.3 %)	2 (6.7 %)
Grade III	0 (0 %)	0 (0 %)
Total	30	30

This table showed that there was insignificant difference regarding the grade of cystocele in both groups (P valule > 0.05) .

C) preoperative urodynamic evaluation includes:

- Free flowmetry with estimation of postvoiding residual
- Cystometry with estimation of valsalva leak point pressure (VLPP).
- Patients were categorized preoperativery according to valsalva leak point pressure into 3 groups :

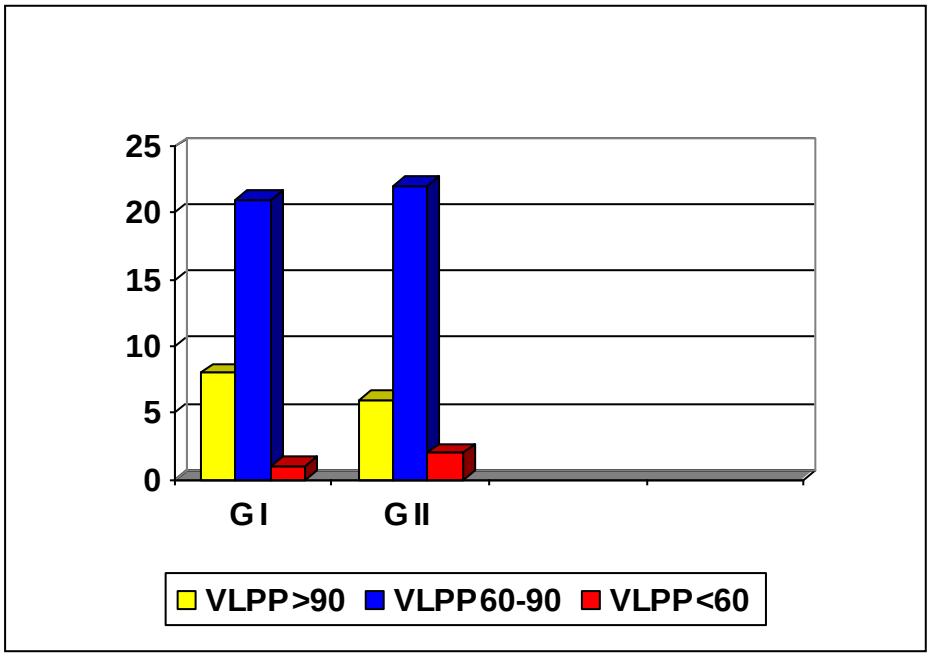
1- Patients with VLPP ≥ 90 CmH 20 typeI SUI .
2- Patients with VLPP≥ 60 > 90 Cm H2o type II SUI.
3- Patients with VLPP < 60 Cm H2o (intrinsic sphincter deficiency) ***(table 7)& (fig 50).***

Table (7) : The preoperative VL PP in studies group.

VLPP	Group				Z	P
	Group I (TVT secur)		Group II (TVT)			
	No	%	N	%		
≥ 90 cm H2o	8	26.7	6	20.0	0.61	>0.05
≥ 60 &<90 Cm H2o	21	70.0	22	73.3	0.29	>0.05
< 60 cm H2o	1	3.3	2	6.7	0.59	>0.05
Total	30	100.0	30	100.0	--	

This table shows that there is no statistically significant difference between the study groups regarding VLPP (P value > 0.05)

(Fig 50) : the pre- operative VLPP in both groups.



D) Operative evaluation :

Operative evaluation included the operative time in minutes, intraoperative bleeding and any other intraoperative complication which can occur in both studied groups. We had 4 cases of iatrogenic bladder perforation in group II which were recognized and managed intraoperatively by needle withdrawal and proper reintroduction with urethral catheter for 1 week.

***Table (8*)**: Mean and standard deviation of operative time and post operative stay .

Parameters	***Group***	***Mean ± SD***	***Range***	***t***	***P***
Operative time	Group I (TVT secur)	13.53± 3.42	10-20	13.6	< 0.001
	Group II (TVT)	25.47±3.28	20-30		
Post operative stay	Group I (TVT secur)	1.13±0.35	1-2	4.61	<0.001
	Group II (TVT)	2.13± 0.21	1-4		

This table showed that these was significant differecne between studied groups regarding operative time and postoperative stay (P value < 0.001).

Table (9) Mean and standerd deviation of intra operative blood loss.

Parameters	***Group***	***Mean ± SD***	***Range***	***t***	***P***
Blood loss /mL	Group I (TVT secur)	72 ± 19.5	50-100	6.37	<0.001
	Group II (TVT)	106.7 ±22.5	80-150		

* < 0.001 highly significant between 2 groups (blood loss decreased in group I than group II)

Table (10): ***Intraoperative complication in the 2 groups .***

Intraoperative complication	***Group***				***Z***	***P***
	Gorup I (TVT secur)		***Group II (TVT)***			
	No	%	No	%		
Bladder perforation	O	O	4	13.3	2.07	< 0.05

< 0.05 significant differecne between 2 groups.

E) Early post operative complication :

The early postoperative complication occured in our research was studied in both groups. We had 3cases of urine retention in gorup II (10%) and no cases in group I with statistically significant difference between both groups (P value < 0.05) .All cases were managed by urethral catheterization for maximum 1 week duration and all cases were imporved .

The incidence of post operative urinary tract infection (UTI) was 13.13 (4 cases) in group I and 16.7 (5cases) , and all cases were treated medically according to calture and sensitivity ***(table 11).***

Table (11) **:** Early postoperative compllication .

Group / Parameters	Group				Z	P
	Gorup I (TVT secur)		Group II (TVT)			
	No	%	No	%		
Urine retention	0	0	3	10	1.8	<0.05
UTI	4	13.3	5	16.7	0.36	>0.05

F- Late postoperative complications:

Vaginal erosion occured in two cases in gorup II (6.7%) and no cases in gorup I with statistically insignificant difference between both gorups.

Urethral erosion occurred in one cases in group I and two cases in gorup II .These cases recognized 2 months postoperatively as it still incontinence . After 3 months these patients managed by urethral mobilization and tape extracted and then fascial patch sling using rectus sheath patch was done then the patient was continent.

Dyspareunia occurred in 1 case (3.3%) in gorup I and also in 1 cases (3.3%) in gourp II with statistically insignificant difference between both groups (***table 12***)

Table (12): ***Late postoperative complication:***

Group / Parameters	Group				Z	P
	Gorup I (TVT secur)		Group II (TVT)			
	No	%	No	%		
Vaginal erosion	0	0	2	6.7	1.44	>0.05
Urethral erosion	1	3.3	2	6.7	1.01	>0.05
Dysparonia	1	3.3	1	3.3	-	-

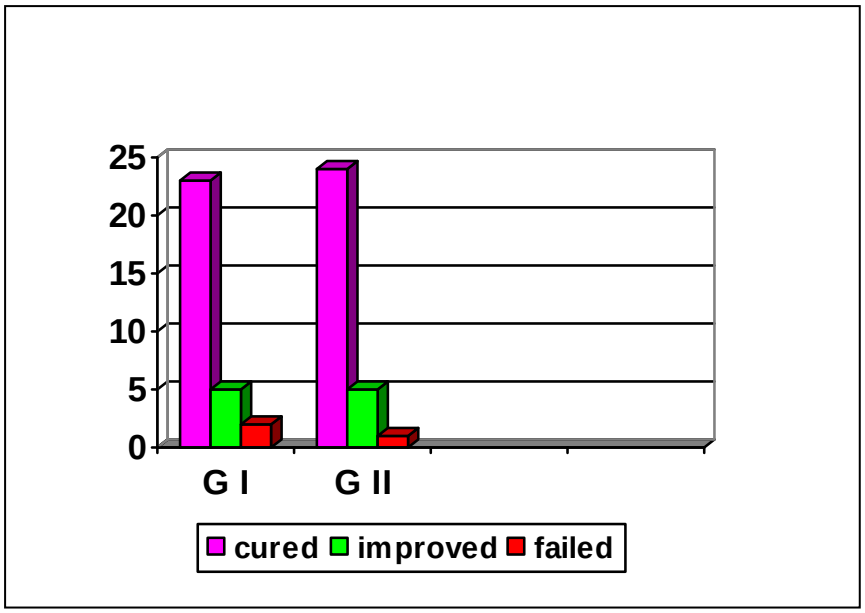
G- Post-operative cure rate:

The cure rate in our study was evaluated objectively and subjectively .The patient was considered cured when there no leakage and negative valsalva leak point pressure. In gooup I the cure rate was 80% and in gorup II the cure rate was 76.7% .The patient was considered improved when she told that there marked decrease in the amount of urine that leak during effort and increase in the activity that induce leakage of urine than it was preoperatively. In gorup I the improvement was 16.7% and the same in group II while faliure was detected in 3.3 % in gorup I and 6.7 in group II. These was statistically insignificant difference regarding the cure, improvement , and faliure rate in both groups ***(table 13).(fig 51).***

Table (13) :*The distribution of outcome of 2 groups*

Parameters	Group				Z	P
	Gorup I (TVT secur)		Group II (TVT)			
	No	%	No	%		
Cured	24	80	23	76.7	0.313	>0.05
Improved	5	16.7	5	16.7	0.00	>0.05
Failed	1	3.3	2	6.7	0.59	>0.05
Total	30	100	30	100		

(fig 51) : Operative outcome in both groups



The relation between the preoperative VLPP and the post-operative cured, improved or failed cases, the data revealed that there were 1 case with VLPP <60 Cm H_2O in group I and this case failed .on the other hand there were 2 cases in group II with VLPP <60 Cm H_2O and both cases failed. with statistically insignificant difference between both groups (Table 14).

Table (14): The relation between preoperative VLPP and the post-operative cured, improved and failed cases.

Parameter	VLPP	Group I No of pts	Group II No of pts	P value
Cured	≥60 cm H_2O	25	24	>0.05
	<60	0	0	-
Improved	≥ 60	4	4	-
	< 60	0	0	-
Failed	≥ 60	0	0	-
	< 60	1	2	>0.05

Post- operative follow up

All patients were followed postoperatively by history taking, physical examination , measurement of post-voiding residual and free flow.

Table (15) : Pre and post operaitve Q max

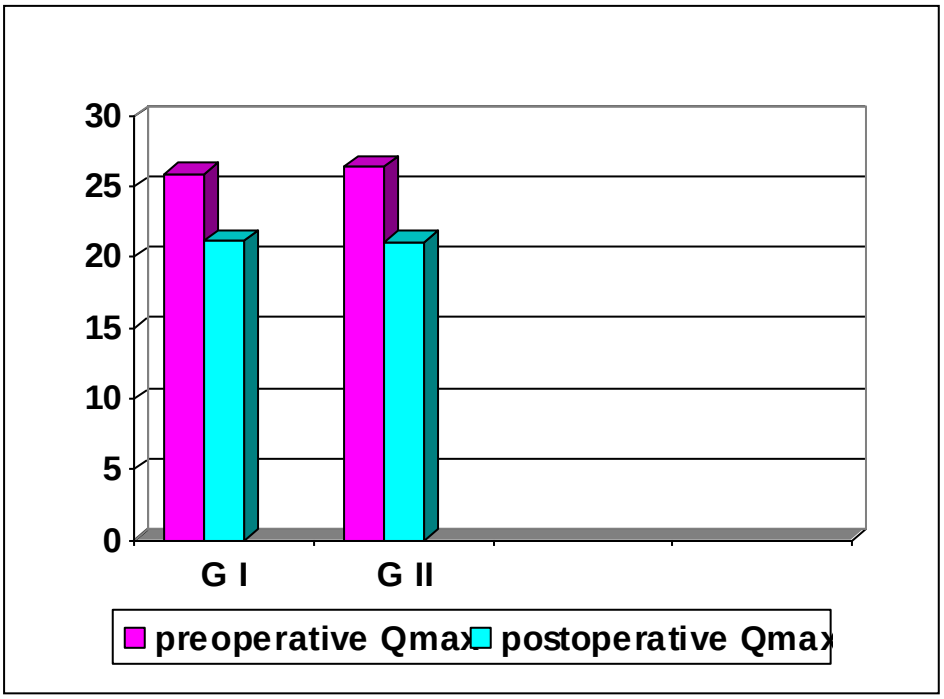
Group / Parameter	GI (TVT secur)	GII (TVT)	t	P
Preoperative Q ómax	25.9 ±2.4	26.4±2.3	0.893	>0.05
Post operative Qmax	21.2 ±1.8	21.1±1.1	0.253	>0.05
Paired t P value	8.63 <0.001	12.3 <0.001	--	

This table illustrate the result of pre& post operative Q max in both group. Regarding group I the pre-operative (X^{-} ±SD) of Q max was 25.9 ±2.4 and post-operative was 21.2±1.8 . There is highly significant difference (paired t = 8.63, P value < 0.001) . in group II mean pre & post –operative Q max was 26.4±2.3 & 21.1±1.1respectively .

This difference is also highly significance (paired t = 12.3, P value < 0.001)

On the other hand, there was no statistically significant difference between the 2 groups regarding preperative or the postoperative Q max (t=0.893 & 0.253 respectively , P value > 0.05 in both groups).

(Fig 52) : pre and postoperative Qmax in both groups



The preoperative & postoperative voiding residual urine ws statistically insignificant in both groups **(Table 16).**

Table (16): The pre and post operative difference in post-voiding residual urine in both gorups:

R. Urine / Time	Mean ± S.D		Unpaired t	P
	Gorup I (TVT secur)	Group II (TVT)		
Preoperative	25.9±4.7	25.1±4.6	0.64	> 0.05
Post operative	26.5±4.4	25.4±4.2	0.996	> 0.05
Paired t P	0.473 >0.05	0.232 >0.05	-	-