RESULTS

This study shows that 50 patients were evaluated, their mean age was 33.04 years and ranged from 20 to 59 years, among the evaluated patients 28 were smokers (56%). All patients were infertile, 44 of them had 1ry infertility while 6 had 2ry infertility with mean duration of 4.8 years ranges from 1 to19 years.

The mean semen volume was 2.7ml ranges from 1-5ml and mean sperm count/ml was 28.6 mil./ml range from 10000-199mil./ml.

This study shows that mean testicular volume by POM was 21.1 cm^3 and US was 19.8 cm^3 and mean difference between POM and US was 1.3 cm^3

In our study there is no significant difference between the mean testicular volume in the right and left testes using POM and US.

The current study shows positive significant correlation of TV when measured by POM and US (P==0.000) and also positive significant correlation of TV regarding the side when measured with POM and US.

This study shows positive significant correlation between TV, semen volume and sperm count.

Table (1): Patients characteristics:		
Total patients evaluated:		**50**
Age (years):	*Mean:*	33.04
	Range:	20-59
	Std Deviation:	4.05
Smoking:	*No.*	*%*
Smokers:	28	56%
Non-smokers	22	44%
Type of infertility:	*No.*	*%*
Primary:	44	88%
Secondary:	6	12%
Duration of infertility (years):	*Mean*	**4.8**
	Range	1-19
	Std deviation	4

Table (1): Shows that 50 patients were evaluated, the mean age was 33.04, among the evaluated patients 28 were smokers (56%). All patients were infertile, 44 of them had primary infertility while 6 had secondary infertility, with mean duration of 4.8 years.

Table 2 : Semen Volume and sperm count					
	N	Minimum	Maximum	Mean	Std. Deviation
Semen volume (ml)	50	1.00	5.00	2.69	1.11981
Sperm count /ml	50	10000	199000000	28620520	45324462.21176

Table (2): shows that the mean semen volume was 2.69 ml and the mean sperm count was 28.62 million /ml.

Table 3: Testicular volume by Prader's orchidometer (POM) and US					
	N	Minimum	Maximum	Mean	Std. Deviation
Prader	100	5.00	25.00	21.1	4.92013
US	100	3.80	34.90	19.8	6.10146

Table (3): shows that the mean testicular volume by Prader's orchidometer was 21.12 while by US it was 19.81 cm^3

Table 4: Mean volume difference between POM and US			
	Minimum	**Maximum**	**Mean**
Mean POM	7.50	25.00	21.1
Mean US	6.10	32.60	19.8
Difference	1.40	7.60	**1.3**

Table (4): this table shows that the mean difference of testicular volume (as measured by POM and US) was 1.3 cm^3.

Table 5: Testicular volume by Prader's orchidometer and US					
	Side	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**
POM	**Right**	50	**21.04**	4.86537	.68807
	Left	50	**21.20**	5.02240	.71027
US	**Rright**	50	**19.89**	6.12479	.86618
	Lleft	50	**19.75**	6.13933	.86823

Table (5): This table shows testicular volume regarding the side (right or left),as measured by POM and US.

Table 6: Correlation between Testicular volume by POM and US (Total)		
		POM
US	r	.852
	P	**.000**

Table (6): This table shows positive significant correlation of testicular size when measured by POM and US (P= 0.000)

Table 7: correlation between Testicular volume by POM and US (Regarding the side)			
side			**POM**
Right	**US**	r	.845
		P	**.000**
Left	**US**	r	.861
		P	**.000**

Table (7): This table shows positive significant correlation of testicular size when measured by POM and US, (P= 0.000) regarding the side (right or left).

Table (8): Correlation between semen volume, sperm count and testicular volume by US						
	Semen Volume			Sperm count		
	n	P	r	n	P	r
Mean testicular volume by US	50	**. 006**	. 381	50	**. 007**	. 379

Table (8): This table shows positive significant correlation between semen volume, sperm count and testicular volume by US. (P= .006 and .007 respectively)

Group Statistics					
	prader_code	N	Mean	Std. Deviation	Std. Error Mean
us	< 25 cc	48	14.9008	3.71366	.53602
	25 cc	52	24.3588	3.97195	.55081

Table (9): This table shows that POM overestimate the TV of testes under 25 cm^3 and underestimate the TV of testes over 25 cm^3.