RESULTS

The study was carried out on 50 patients (7 males and 43 females) suffering from lower extremity telangiectasia and reticular veins ranging from 0.1 -4 mm in diameter. The study was carried out in General Surgery outpatient clinic of Benha University Hospital during the period from May 2008 to December 2009.

All patients were presented due to bad cosmetic appearance of their legs due to telangiectasias and reticular veins in the lower limb (C1) according to CEAP classification.

About 10 patients (females) experienced mild heaviness pain during prolonged standing plus bad cosmetic appearance.

The studied patients were treated by microsclerotherapy (liquid & foam). Patients were divided randomly into 2 groups , each group included 25 Patients :

- ***Group A*** included 25 patients (1 male and 24 females) aged between 20 to 25 years old with mean age of 29 years. Patients were treated with liquid microsclerotherapy using polidocanol as detergent sclerosant.
- ***Group B*** included 25 patients (6 males and 19 females) aged between 22 to 25 years old with mean age of 30 years. Patients were treated with foam microsclerotherapy using polidocanol as a sclerosant mixed with air according to Tessari's method.

The results of this study are represented in tables (1-10) and figures (24-39).

Table (1): Distribution of studied patients according to sex:

	Liquid (A)		Foam (B)		Sum		X^2	p
	No	%	No	%	No	%		
Male	1	4	6	24	7	14	2.7	>0.05*
Female	24	96	19	76	43	86		

*P value = >0.05 is non significant.

Figure (24): Distribution of liquid group (A) according to sex:

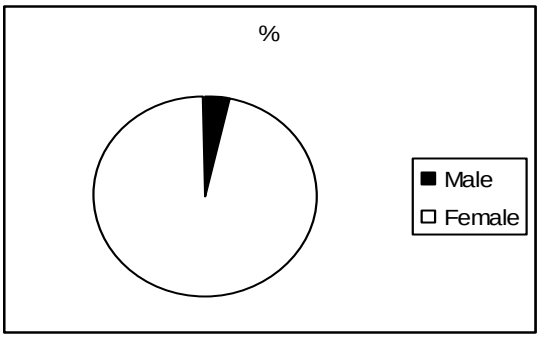


Figure (25): Distribution of foam group (B) according to sex:

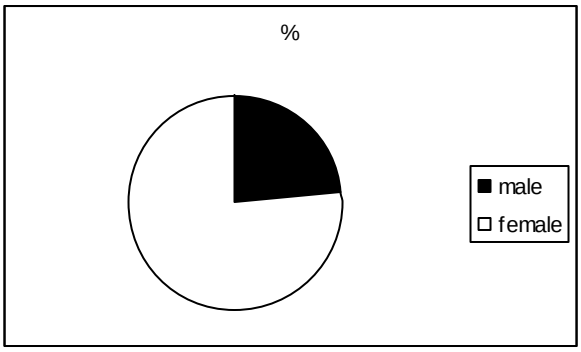


Figure (26): Distribution of the sum of the two study groups according to sex:

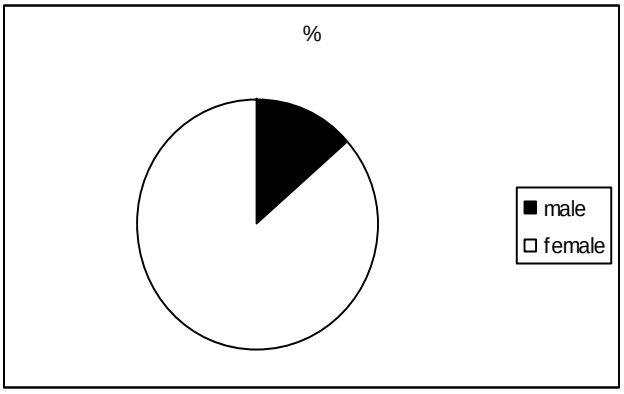


Table (2): Distribution of studied patients according to presentation:

	Number of patients	%
Bad cosmesis	40	80
Bad cosmesis + pain	10	20

Figure (27): Distribution of studied patients according to presentation:

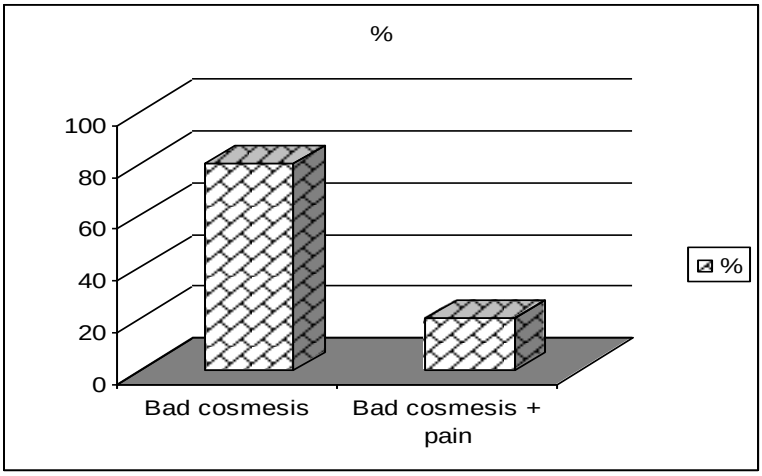


Table (3): Distribution of studied patients according to shape of veins:

	Number of patients	%
Spider	32	64
Linear	18	36

Figure (28): Distribution of studied patients according to shape of veins:

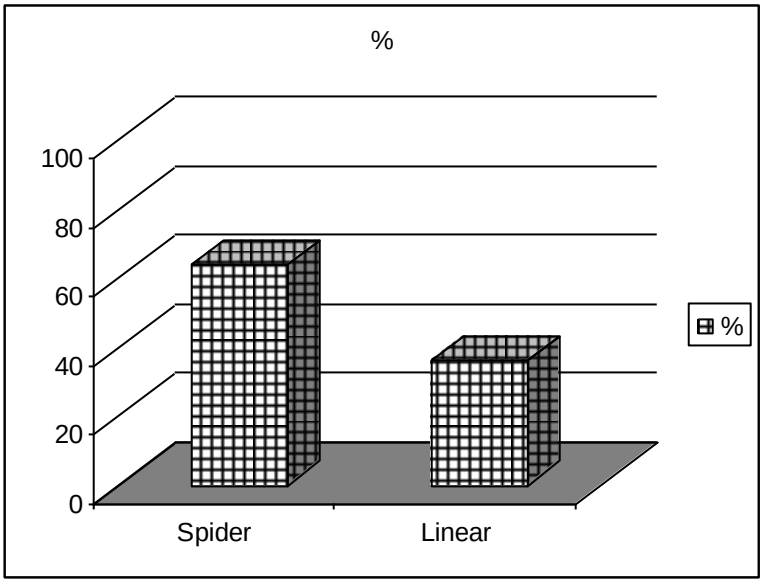


Table (4): Distribution of studied patients according to results of injection (disappearance of spider veins):

	liquid		foam		sum		Z	p
	No	%	No	%	No	%		
Worse than before	0	0	0	0	0	0	--	--
No change	0	0	0	0	0	0	--	--
Minor disappearance	1	4	1	4	2	4	--	--
Moderate disappearance	11	44	6	24	17	34	1.5	>0.05*
Complete disappearance	13	52	18	72	31	62	1.5	>0.05*

*P value = >0.05 is non significant.

Figure (29): : Distribution of both study groups according to results of injection (disappearance of spider veins):

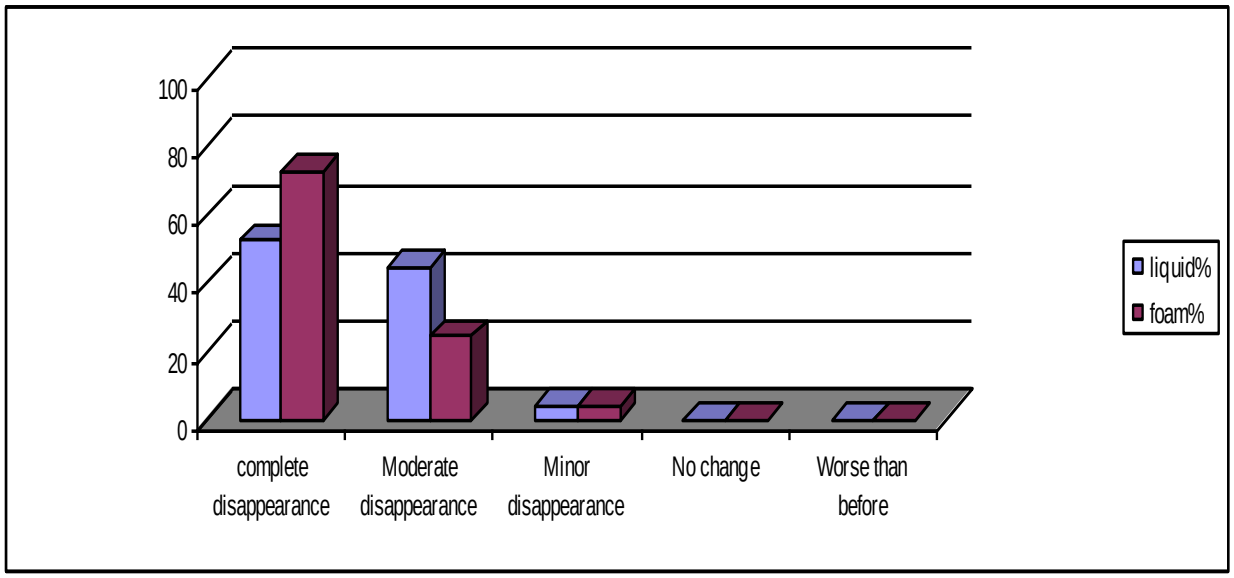
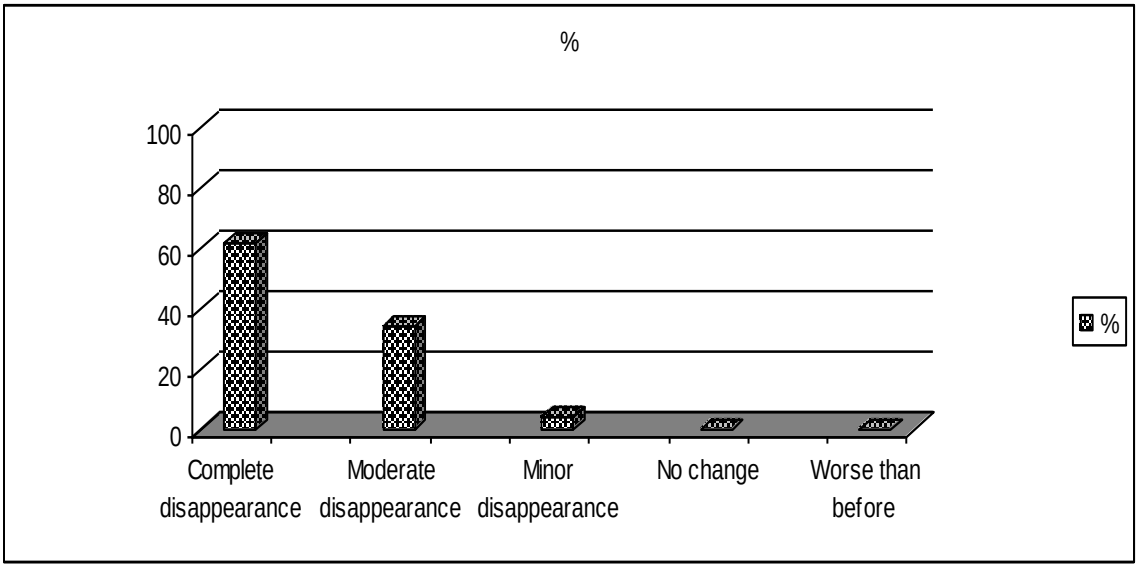


Figure (30): Distribution of the sum of two study groups according to results of injection (disappearance of spider veins):



The final results after 6 months revealed that the complete disappearance was determined in (52 %) of liquid group and (72%) in foam group. The results of treatment are shown in table (4) & figures (29,30).

The sum of complete and moderate disappearance was 96% in both groups as detected in photographs of treated areas pre-treatment and 6 months post-treatment [see cases photographs].

Table (5): Distribution of the studied patients according to adverse events:

		Liquid		Foam		sum		Z	p
		No	%	No	%	No	%		
Early	Ecchymosis	2	8	1	4	3	6	0.6	>0.05*
	Local inflammation	1	4	2	8	3	6	0.6	>0.05*
	Oedema	0	0	0	0	0	0	--	--
	Bullous formation	0	0	0	0	0	0		
	DVT	0	0	0	0	0	0	--	--
	Dizziness	0	0	0	0	0	0	--	--
	Allergy	0	0	0	0	0	0	--	--
	Use of analgesia for pain	2	8	2	8	4	8	--	--
	Coagulum formation	1	4	0	0	1	2	1.01	>0.05*
Late	Pigmentation	6	24	4	16	10	20	0.8	>0.05*
	Telangiectatic matting	4	16	2	8	6	12	0.9	>0.05*
	Ulceration	0	0	0	0	0	0	--	--
	Necrosis	1	4	0	0	1	2	1.01	>0.05*
	Systemic adverse effects	0	0	0	0	0	0	--	--
	Recurrence	0	0	0	0	0	0	--	--

No : number

*P value = >0.05 is non significant.

Figure (31) : Distribution of both study groups according to adverse events:

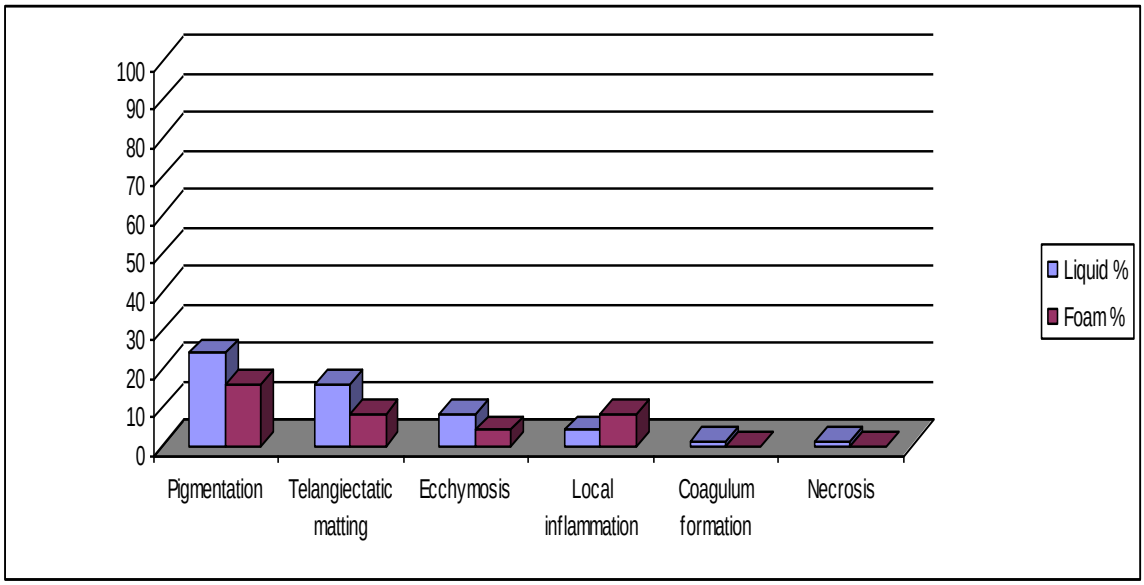
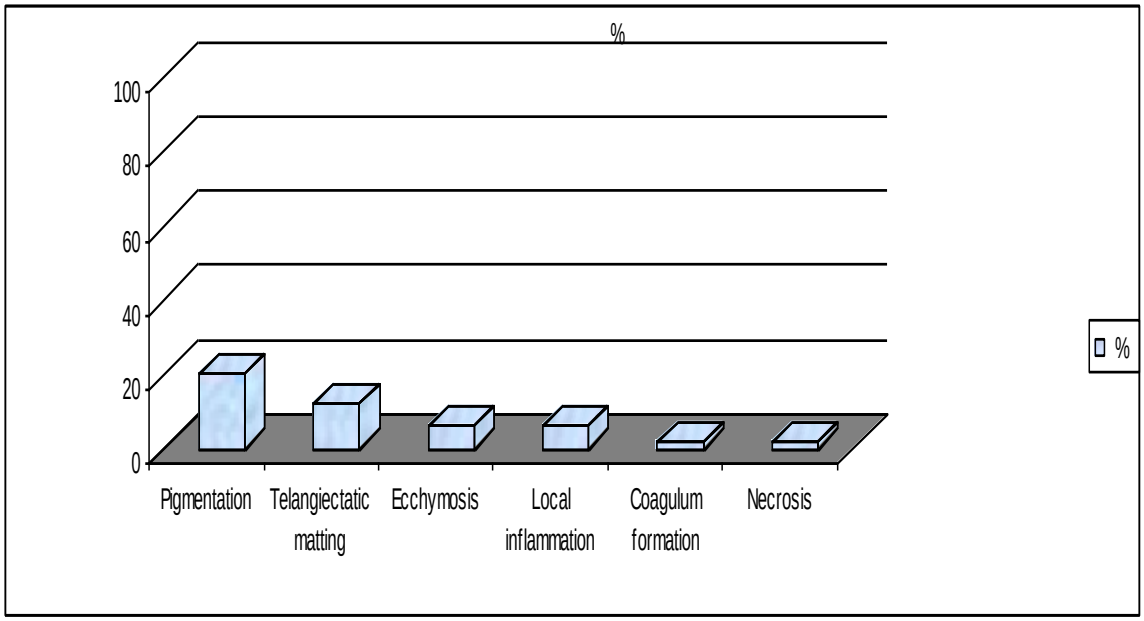


Figure (32): Distribution of the sum of two groups according to adverse events:



The adverse events of the treatment observed in both group are shown in table (5) and figures (31,32). The most common adverse effects was

pigmentation which determined in (24%) of liquid group & (16%) of foam group. Pigmentations appeared within 2 weeks after treatment and were of minor punctuate type which improved with time .

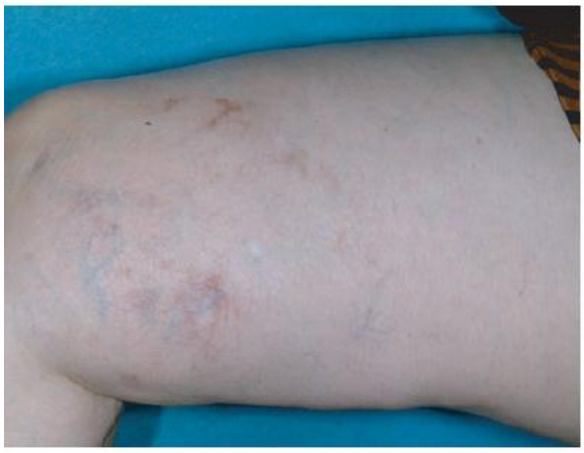


Figure (33) : Pigmentation after liquid sclerotherapy.

The second most common adverse event was telangiectatic matting which was new telangiectasia within the area of treatment . It was detected in 4 patients in liquid group (16%) & in 2 patients in foam group (8%) . this matting appeared within one month after treatment which may be due to high concentration or large amount of the sclerosant or high pressure of injection and required to be reinjected.

Figure (34): Telangiectatic matting after liquid sclerotherapy .

Localized necrosis was observed in one patient of liquid group .It might be due to extravasation of the material into surrounding tissue and followed by necrotic crust which separated with antibiotic cream leaving small pigmented area fade with time.

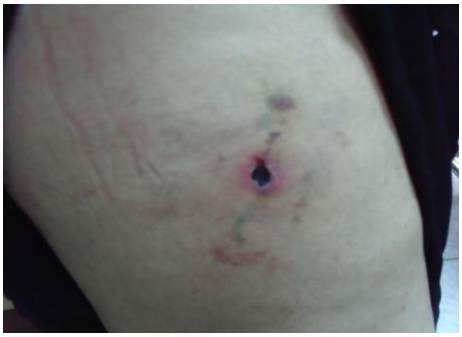


Figure (35) : Necrosis after liquid sclerotherapy.

During the follow up period , there was no oedema of lower limb , deep venous thrombosis , dizziness or any systemic adeverse events .

Table (6) : Distribution of the studied patients according to tolerability scale:

	liquid		foam		sum	
	No	%	No	%	No	%
[0] no discomfort	20	80	21	84	41	82
[1] mild discomfort	3	12	2	8	5	10
[2] moderate discomfort	2	8	2	8	4	8
[3] severe discomfort	0	0	0	0	0	0

Figure (36) : Distribution of both study groups according to tolerability scale:

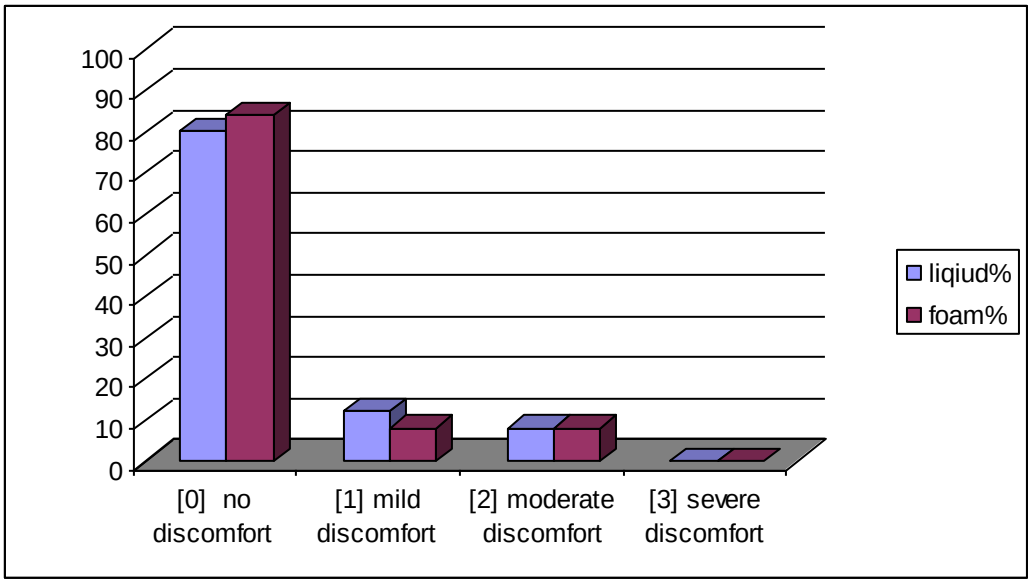


Figure (37) : Distribution of the sum of two groups according to tolerability scale:

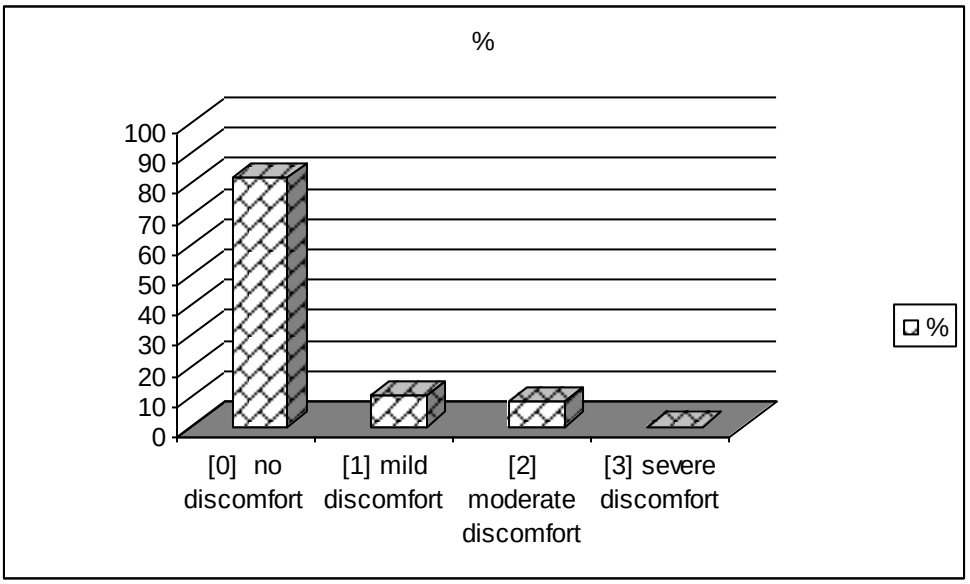


Table (7) : Distribution of the studied patients according to patient satisfaction post-treatment:

	liquid		foam		Sum		Z	p
	No	%	No	%	No	%		
Excellent	16	64	18	72	34	68	0.6	>0.05*
Good	8	32	5	20	13	26	0.9	>0.05*
Fair	1	4	2	8	3	6	0.6	>0.05*
Poor	0	0	0	0	0	0	--	--

*P value = >0.05 is non significant.

Figure (38): Distribution of both study groups according to patient satisfaction post-treatment:

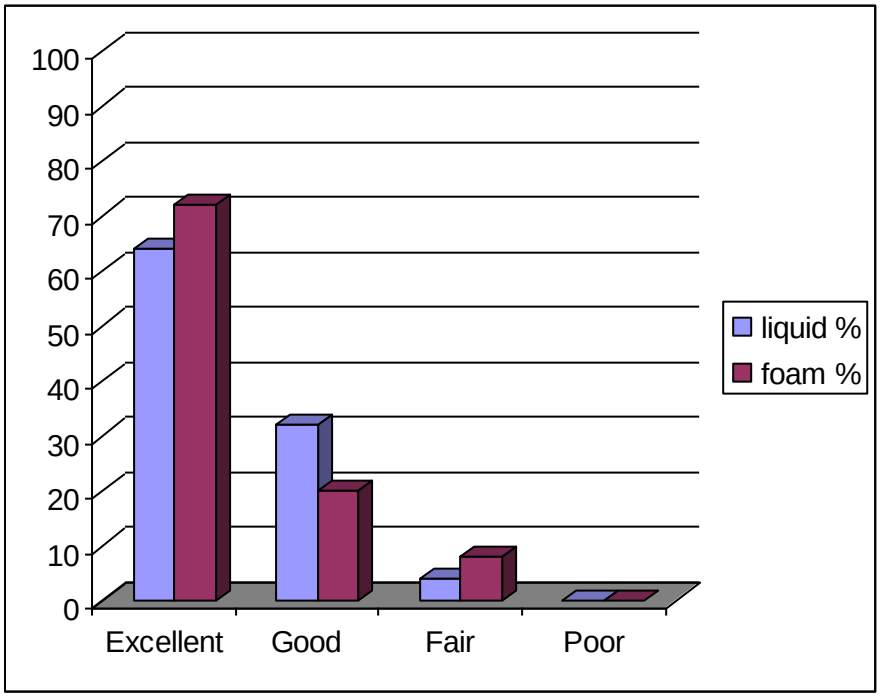
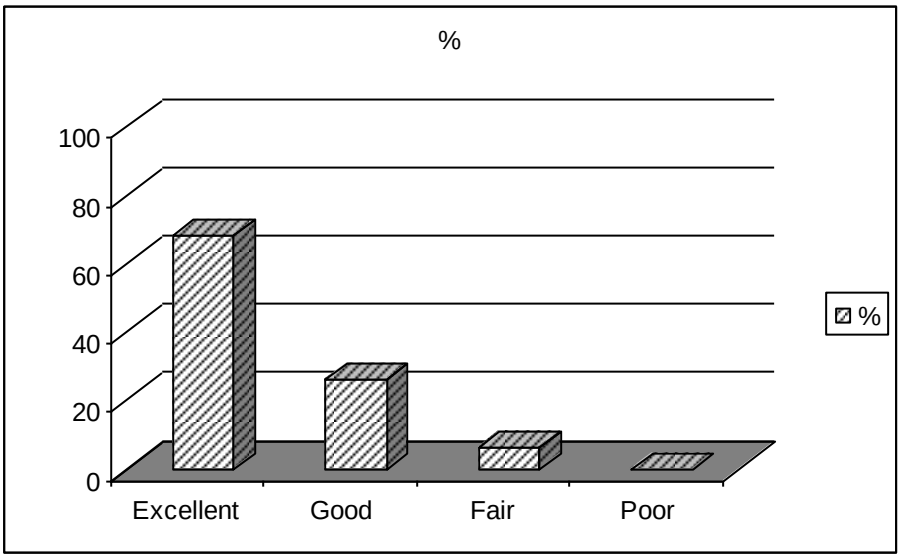


Figure (39) : Distribution of the sum of two groups according to patient satisfaction post-treatment:



Finally , the patient satisfaction was excellent in 16 patients (64%) of liquid group and 18 patients (72%) of foam group and totally in (68%) of studied patients . Good satisfaction was found in 8 patients (32%) of liquid group and 5 patients (20%) of foam group and totally (26%) of studied patients as shown in table (7) and figures (38,39).

The sum of excellent & good satisfaction of patients was (94%) indicating that the procedure was very good in achieving good cosmetic results for treatment of spider and reticular veins of lower limbs as a cosmetic problem.