

**Table (4): Distribution of studied patients according to age.**

Age(years)	TCA (n=30)	GA (n=30)	AFA (n=30)
<b>Range</b>	16-72	16-55	12-59
<b>Mean</b>	31.60	31.60	32.67
<b>±SD</b>	14.59	11.27	13.49
<b>F</b>	0.07		
<b>P</b>	>0.05		

**Table (5): Distribution of studied patients according to gender.**

Gender	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
<b>Male</b>	2	6.67	6	20.00	2	6.67	10	11.11
<b>Female</b>	28	93.33	24	80.00	28	93.33	80	88.89
<b>X<sup>2</sup></b>	0.36						NS	
<b>P</b>	>0.05							

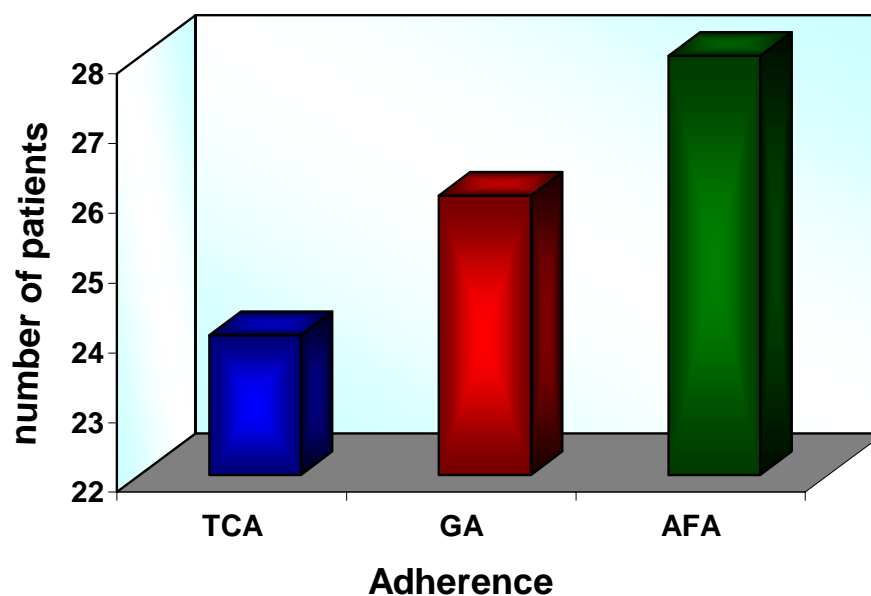
**Table (6): Distribution of studied patients according to included skin types.**

Skin type	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
<b>III</b>	17	56.67	14	46.67	12	40.00	43	47.78
<b>IV</b>	13	43.33	16	53.33	18	60.00	47	52.22
<b>X<sup>2</sup></b>	1.69						NS	
<b>P</b>	>0.05							

**Table (7): Distribution of studied patients according to degree of adherence to treatment program.**

Degree of adherence	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
<b>Negative</b>	6	20.00	4	13.33	2	6.67	12	13.33
<b>Positive</b>	24	80.00	26	86.67	28	93.33	78	86.67
<b>X<sup>2</sup></b>	2.31						NS	
<b>P</b>	>0.05							

NS=non-significant



**Figure 2: Comparison between patients treated with TCA, GA and AFAs regarding their degree of adherence to the treatment program.**

**Table (8): Distribution of melasma patients according to color of lesion.**

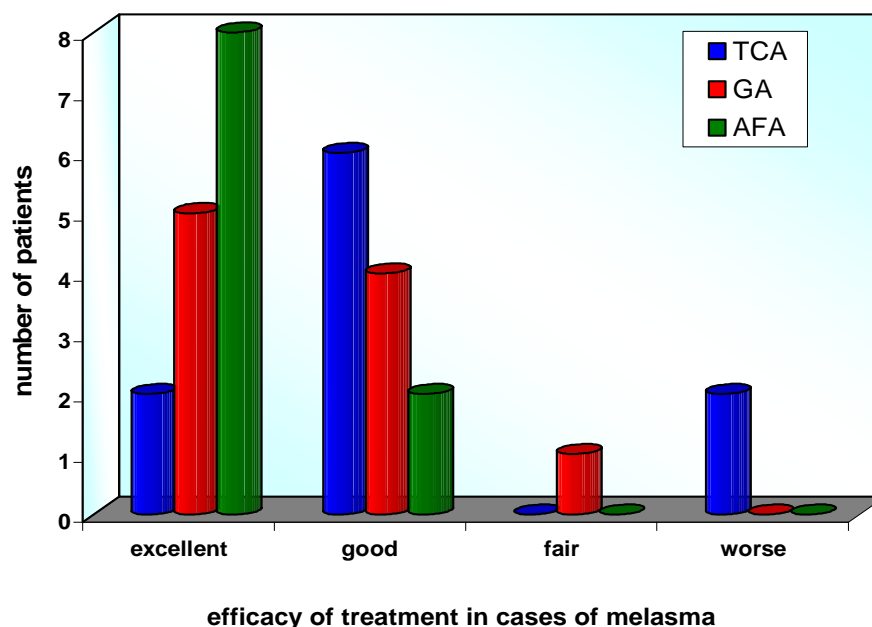
Color of lesion	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
Light brown	6	60.00	4	40.00	4	40.00	14	46.67
Dark brown	4	40.00	6	60.00	6	60.00	16	53.33
Blue brown	0	00.00	0	00.00	0	00.00	0	00.00
X <sup>2</sup>	1.07						NS	
P	>0.05							

NS=Non-significant

**Table (9): Clinical efficacy of TCA 35%, GA70% and AFAs in the treatment of melasma.**

Clinical efficacy	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n=30)	
	No	%	No	%	No	%	No	%
<b>Excellent</b>	2	20.00	5	50.00	8	80.00	15	50.00
<b>Good</b>	6	60.00	4	40.00	2	20.00	12	40.00
<b>Fair</b>	0	00.00	1	10.00	0	00.00	1	3.33
<b>worsening</b>	2	20.00	0	00.00	0	00.00	2	6.67
$X^2$	11.6						S	
P	<0.05*							

\*Significant



**Figure 3: Clinical efficacy of TCA, GA and AFAs in the treatment of melasma .**

**Table (10): Evaluation of acne patients according to type of lesion and therapeutic line.**

Therapeutic line	Type of lesion								
	Inflammatory acne						Noninflammatory acne		
	papules			pustules			Comedones		
	B	A	(Paired t)	B	A	(Paired t)	B	A	(Paired t)
<b>TCA(n=10)</b> Mean ±SD	5.4 3.63	3.8 3.10	1.06	14.2 7.74	9.0 4.31	1.91	5.5 3.02	1.6 1.52	3.77*
<b>GA(n=10)</b> Mean ±SD	10.6 4.2	4.2 3.17	6.24*	15.4 6.35	4.4 2.56	7.17*	6.3 5.61	1.4 1.12	2.71*
<b>AFA(n=10)</b> Mean ±SD	15.6 7.93	4.8 3.28	5.64*	16.0 8.11	5.8 3.48	5.94*	8.9 6.15	1.8 1.43	3.56*

\*Significant

B=Before

A=After

**Table (11): Efficacy of TCA 35%, GA70% and AFAs in the treatment of acne complications (scars and post inflammatory hyperpigmentation).**

Skin lesion	Before peeling				After peeling			
	0 (No) (%)	+	++	+++	0 (No) (%)	+	++	+++
<b>Pitted scars</b>								
TCA (n=10)	3 (30.0)	4 (40.0)	2 (20.0)	1 (10.0)	7 (70.0)	3 (30.0)	0 (0.0)	0 (0.0)
GA(n=10)	2 (20.0)	4 (40.0)	3 (30.0)	1 (10.0)	5 (50.0)	4 (40.0)	1 (10.0)	0 (0.0)
AFA (n=10)	3 (30.0)	3 (30.0)	2 (20.0)	2 (20.0)	6 (60.0)	3 (30.0)	1 (10.0)	0 (0.0)
<b>Total (n =30)</b>	8 (26.67)	11 (36.67)	7 (23.33)	4 (13.33)	18 (60.00)	10 (33.33)	2 (6.67)	0 (0.0)
<b>X<sup>2</sup> (p)</b>	1.22 (>0.05)				1.53 (>0.05)			
<b>Postinf. Hyperpig.</b>								
TCA (n=10)	4 (40.0)	4 (40.0)	2 (20.0)	0 (0.0)	1 (10.0)	6 (60.0)	3 (30.0)	0 (0.0)
GA(n=10)	3 (30.0)	2 (20.0)	4 (40.0)	1 (10.0)	6 (60.0)	3 (30.0)	1 (10.0)	0 (0.0)
AFA (n=10)	4 (40.0)	3 (30.0)	1 (10.0)	2 (20.0)	7 (70.0)	2 (20.0)	1 (10.0)	0 (0.0)
<b>Total (n =30)</b>	11 (36.67)	9 (30.00)	7 (23.33)	3 (10.00)	14 (46.67)	11 (36.67)	5 (16.67)	0 (0.0)
<b>X<sup>2</sup> (p)</b>	4.85 (>0.05)				8.34 (<0.05*)			

\*Significant

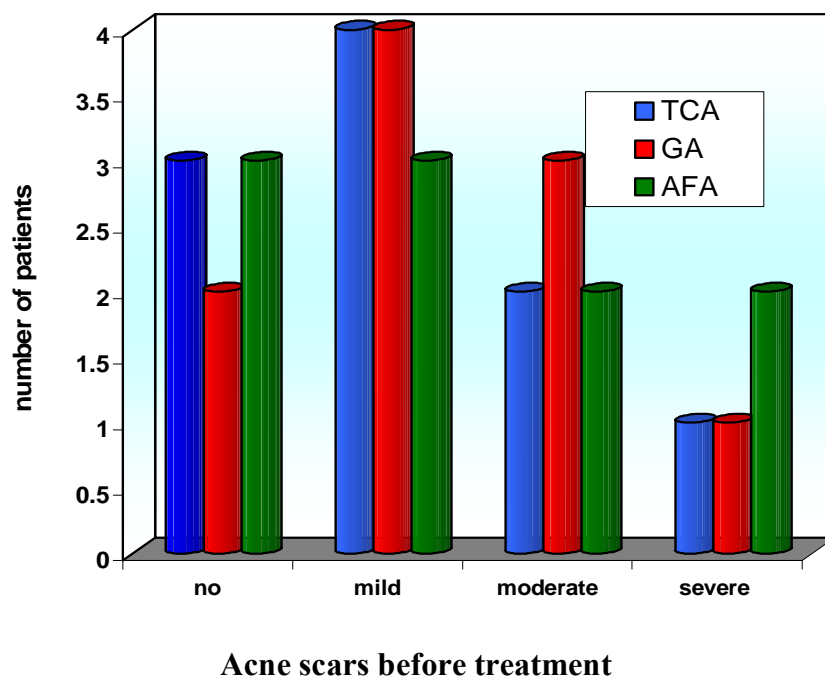


Figure (4): Distribution of acne patients in the studied groups according to the presence of acne scars before treatment.

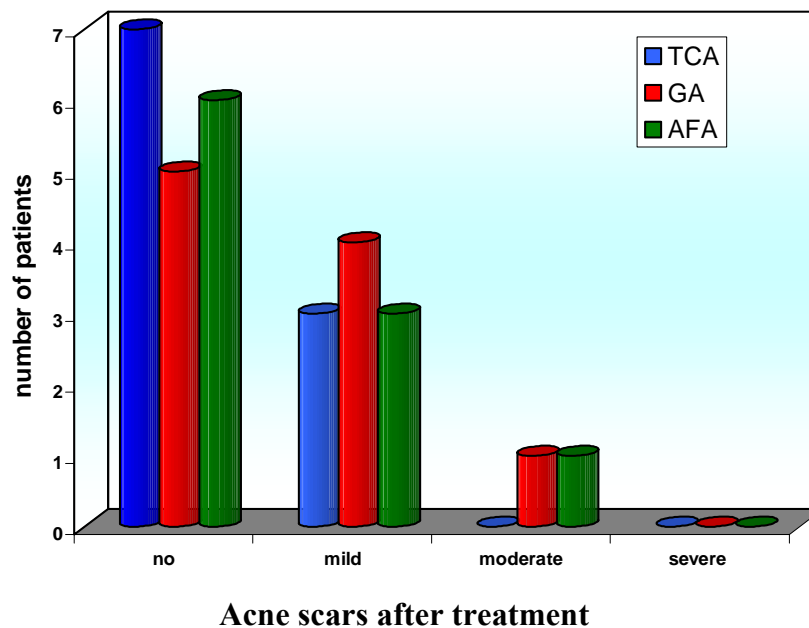
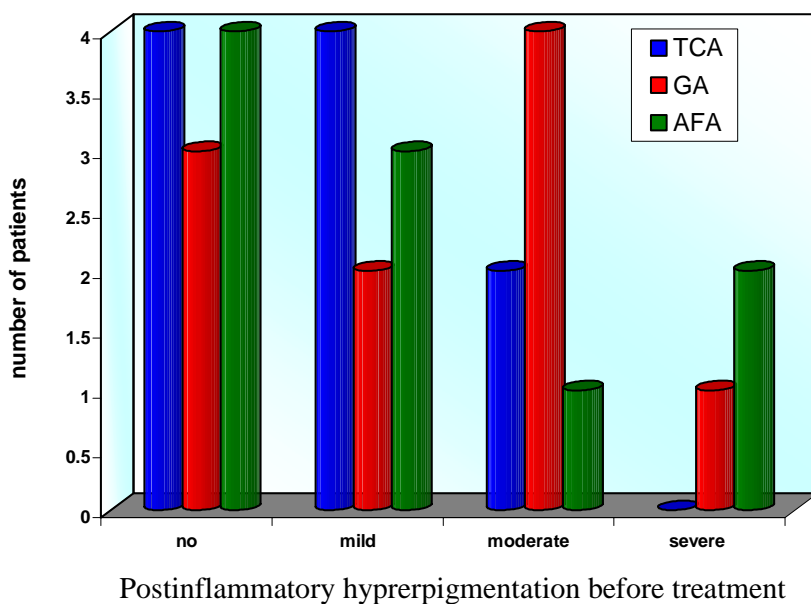
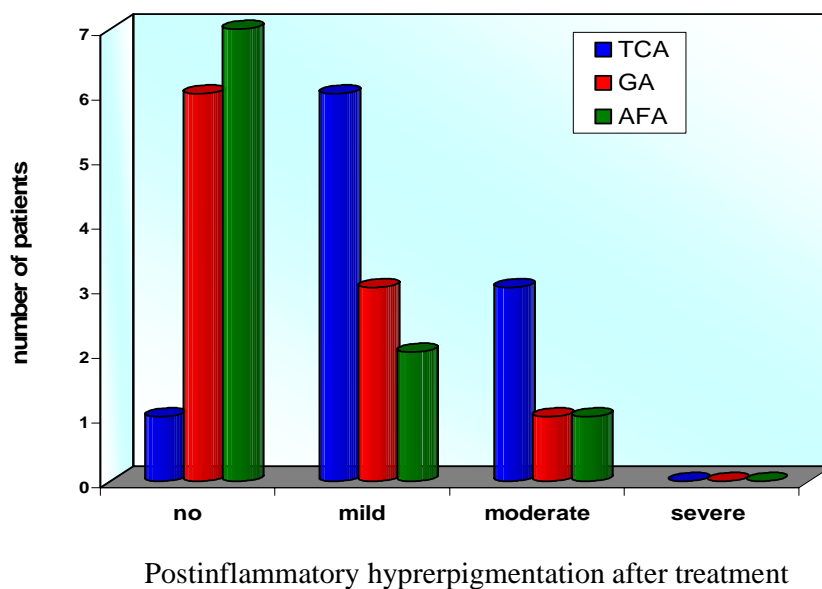


Figure (5): Clinical efficacy of TCA, GA and AFAs in the treatment of acne scars.



**Fig. (6):** Distribution of acne patients in the studied groups according to the presence of postinflammatory hyperpigmentation before treatment.

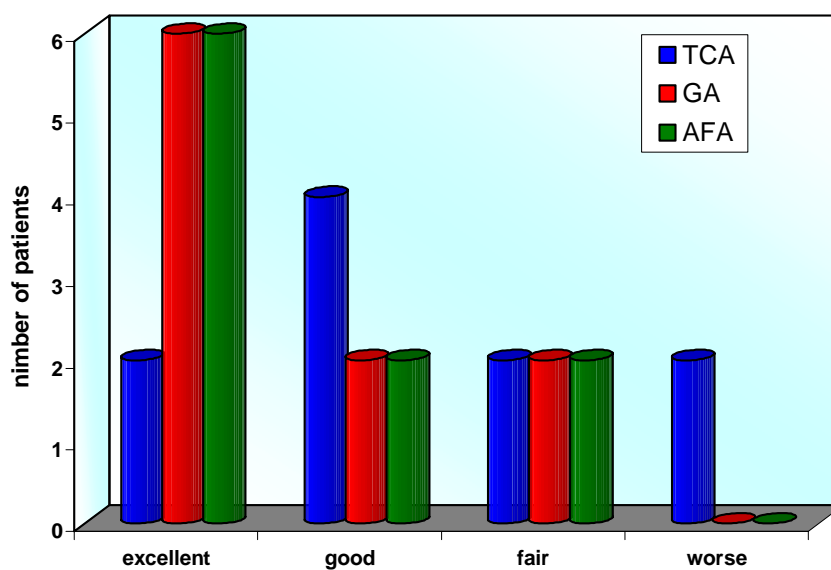


**Figure (7):** Efficacy of TCA, GA and AFAs in the treatment of postinflammatory hyperpigmentation.

**Table (12): Clinical efficacy of TCA 35%, GA70% and AFAs in the treatment of acne patients.**

Clinical efficacy	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
Excellent	2	20.00	6	60.00	6	60.00	14	46.67
Good	4	40.00	2	20.00	2	20.00	8	26.67
Fair	2	20.00	2	20.00	2	20.00	6	20.00
worsening	2	20.00	0	00.00	0	00.00	2	6.67
X <sup>2</sup>	7.29						S	
P	<0.05							

\*Significant



Clinical efficacy in the treatment of acne.

**Figure (8): Comparison between the efficacy of TCA, GA and AFAs in the treatment of acne patients.**

**Table (13): Distribution of fine wrinkles patients according to site of lesion.**

St. material Site	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
<b>Periorbital</b>	10	100.00	10	100.00	10	100.00	30	100.00
<b>Forehead</b>	6	60.00	4	40.00	7	70.00	17	56.67

**Table (14): Distribution of fine wrinkles patients according to Glogau classification (skin phototype).**

Phototype of the skin	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
<b>I</b>	0	00.00	0	00.00	0	00.00	0	00.00
<b>II</b>	6	60.00	5	50.00	6	60.00	17	56.67
<b>III</b>	3	30.00	4	20.00	4	40.00	11	36.67
<b>IV</b>	1	10.00	1	10.00	0	00.00	2	6.67
<b>X<sup>2</sup></b>	1.3						NS	
<b>P</b>	>0.05							

NS =Non-significant

**Table (15): Clinical evaluation of fine wrinkles patients according to therapeutic line and site of lesion.**

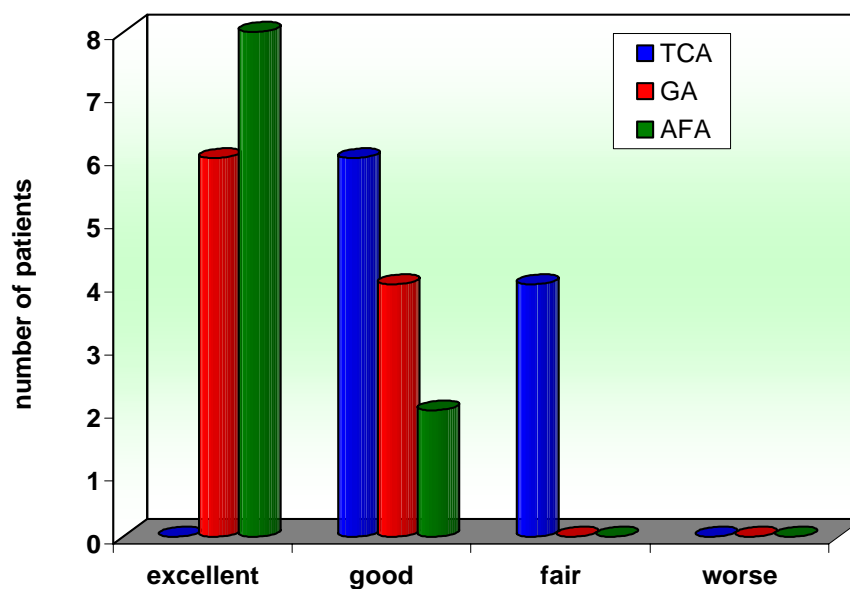
Skin lesion Therapy	Before peeling				After peeling			
	0 (No) (%)	+	++	+++	0 (No) (%)	+	++	+++
<b>Periorbital</b>								
TCA (n=10)	0 (0.0)	0 (0.0)	6 (60.0)	4 (40.0)	0 (0.0)	4 (40.0)	6 (60.0)	0 (0.0)
GA(n=10)	0 (0.0)	0 (0.0)	8 (80.0)	2 (20.0)	4 (40.0)	6 (60.0)	0 (0.0)	0 (0.0)
AFA (n=10)	0 (0.0)	0 (0.0)	4 (40.0)	6 (60.0)	4 (40.0)	6 (60.0)	0 (0.0)	0 (0.0)
<b>Total (n =30)</b>	0 (0.0)	0 (0.0)	18 (60.0)	12 (40.0)	8 (26.67)	16 (53.33)	6 (20.0)	0 (0.0)
<b>X<sup>2</sup> (p)</b>	3.33 (>0.05)				16.50* (<0.05)			
<b>Forehead</b>								
TCA (n=10)	4 (40.0)	6 (60.0)	0 (0.0)	0 (0.0)	4 (40.0)	6 (60.0)	0 (0.0)	0 (0.0)
GA(n=10)	6 (60.0)	4 (40.0)	0 (0.0)	0 (0.0)	6 (60.0)	4 (40.0)	0 (0.0)	0 (0.0)
AFA (n=10)	3 (30.0)	7 (70.0)	0 (0.0)	0 (0.0)	4 (40.0)	6 (60.0)	0 (0.0)	0 (0.0)
<b>Total (n =30)</b>	13 (43.33)	17 (56.67)	0 (0.0)	0 (0.0)	14 (46.67)	16 (53.33)	0 (0.0)	0 (0.0)
<b>X<sup>2</sup> (p)</b>	1.90 (>0.05)				3.33 (>0.05)			

\*Significant

**Table (16): Comparison of clinical efficacy of TCA 35%, GA70% and AFAs in the treatment of fine wrinkles.**

Clinical efficacy	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
Excellent	0	00.00	6	60.00	8	80.00	14	46.67
Good	6	60.00	4	40.00	2	20.00	12	40.00
Fair	4	40.00	0	00.00	0	00.00	4	13.33
worsening	0	00.00	0	00.00	0	00.00	0	00.00
X <sup>2</sup> P	7.29 <0.05*						S	

\*Significant



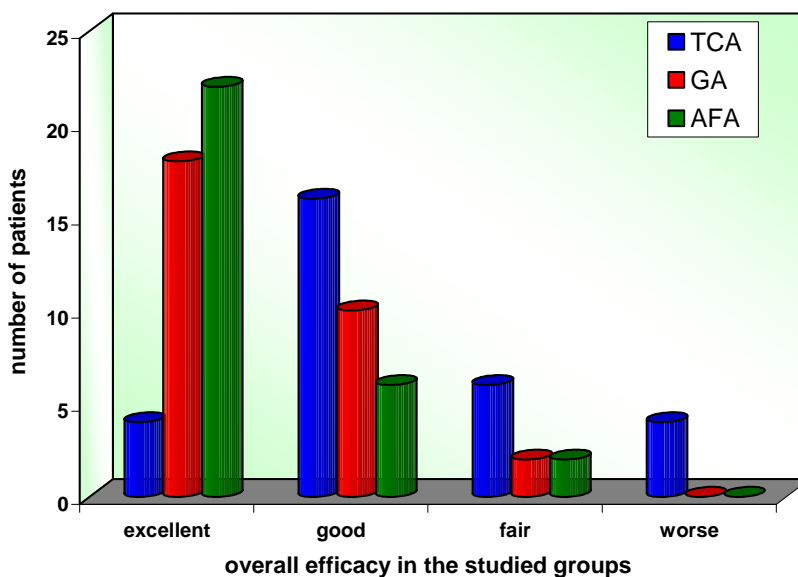
Clinical efficacy in the treatment of fine wrinkles.

**Figure (9): Comparison between the efficacy of TCA, GA and AFAs in the treatment of fine wrinkles.**

**Table (17): Comparison between the three therapeutic lines regarding their clinical efficacy in the treatment of the studied diseases.**

Clinical efficacy	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
<b>Excellent</b>	4	(13.33)	18	(60.00)	22	(73.33)	44	(48.89)
<b>Good</b>	16	(53.33)	10	(33.33)	6	(20.00)	32	(35.56)
<b>Fair</b>	6	(20.00)	2	(6.67)	2	(6.67)	10	(11.11)
<b>worsening</b>	4	(13.33)	0	(00.00)	0	(00.00)	4	(4.44)
<b>X<sup>2</sup> P</b>	28.13 <0.05*						<b>S</b>	

\*Significant



**Fig. (10): Comparison between TCA, GA and AFAs regarding their efficacy in the treatment of the three targeted diseases**

**Table (18): Comparison between the three therapeutic lines regarding their onset of improvement in melasma patients.**

Onset of improvement	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
2 sessions	0	00.00	0	0.0	6	60.00	6	20.0
2-4 sessions	0	00.00	6	60.00	4	40.00	10	33.33
4-6 sessions	8	80.00	4	40.00	0	0.0	12	40.00
No improvement	2	20.00	0	0.0	0	0.0	2	6.67
$X^2$	29.6							
P	<0.05*						S	

\*Significant

**Table (19): Comparison between the three therapeutic lines regarding their onset of improvement in acne patients.**

Onset of improvement	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
2 sessions	0	00.00	0	0.0	2	20.00	2	6.67
2-4 sessions	6	60.00	6	60.00	6	60.00	18	60.00
4-6 sessions	2	20.00	4	40.00	2	20.00	8	26.67
No improvement	2	20.00	0	00.00	0	20.00	2	6.67
$X^2$	9.0							
P	>0.05						NS	

NS=Non-significant

**Table (20): Comparison between the three therapeutic lines regarding their onset of improvement in fine wrinkle patients.**

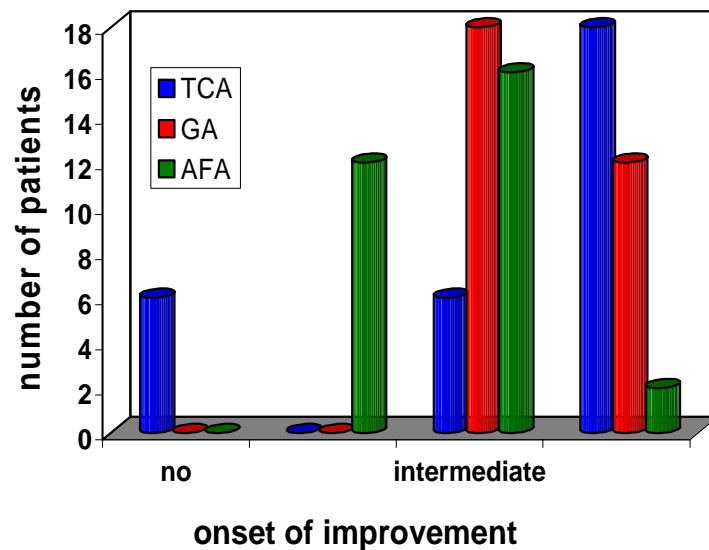
Onset of improvement	TCA (n=10)		GA (n=10)		AFA (n=10)		Total (n =30)	
	No	%	No	%	No	%	No	%
2 sessions	0	00.00	0	0.0	4	40.00	4	13.33
2-4 sessions	0	00.00	6	60.00	6	60.00	12	40.00
4-6 sessions	8	80.00	4	40.00	0	00.00	12	40.00
No improvement	2	20.00	0	00.00	0	00.00	2	6.67
<b>X<sup>2</sup></b>	26.0						<b>S</b>	
<b>P</b>	<0.05*							

\*Significant

**Table (21): Comparison between TCA, GA and AFAs regarding their onset of improvement in all groups of patients.**

Onset of improvement	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)		
	No	%	No	%	No	%	No	%	
2 sessions	0	0.0	0	0.0	12	40.00	12	13.33	
2-4 sessions	6	20.00	18	60.00	16	53.33	40	44.44	
4-6 sessions	18	60.0	12	40.00	2	6.67	32	35.56	
No improvement	6	20.00	0	00.00	0	0.0	6	6.67	
$X^2$	54.5								
P	<0.05*								S

\*Significant



**Fig. (11): Comparison between TCA, GA and AFAs regarding their onset of improvement in the treatment of melasma acne vulgaris and fine wrinkles**

**Table (22): Comparison between the three therapeutic lines of treatment regarding incidence of erythema in all groups of patients.**

Erythema	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
<b>None</b>	2	6.67	4	13.33	27	90.00	33	36.67
<b>Mild</b>	8	26.67	12	40.00	3	10.00	23	25.56
<b>Moderate</b>	16	53.33	10	33.33	0	00.00	26	28.89
<b>severe</b>	4	13.33	4	13.33	0	00.00	8	8.89
<b>X<sup>2</sup></b>	59.5						S	
<b>P</b>	<0.05*							

\*Significant

**Table (23): Comparison between the three therapeutic lines of treatment regarding incidence of discomfort in all groups of patients.**

Discomfort	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
<b>None</b>	2	6.67	4	13.33	24	80.00	30	33.33
<b>Mild</b>	8	26.67	12	40.00	6	20.00	26	28.89
<b>Moderate</b>	16	53.33	10	33.33	0	00.00	26	28.89
<b>Severe</b>	4	13.33	4	13.33	0	00.00	8	8.89
<b>X<sup>2</sup></b>	50.83						S	
<b>P</b>	<0.05*							

\* Significant

**Table (24): Comparison between the three therapeutic lines of treatment regarding incidence of visible exfoliation in all groups of patients.**

Visible exf.	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
Negative	4	13.33	6	20.00	30	100.00	40	44.44
Positive	26	86.67	24	80.00	0	00.00	50	55.56
X <sup>2</sup>	56.52						S	
P	<0.05							

**Table (25): Incidence of hyperpigmentation after TCA, GA and AFAs peels in all groups of patients.**

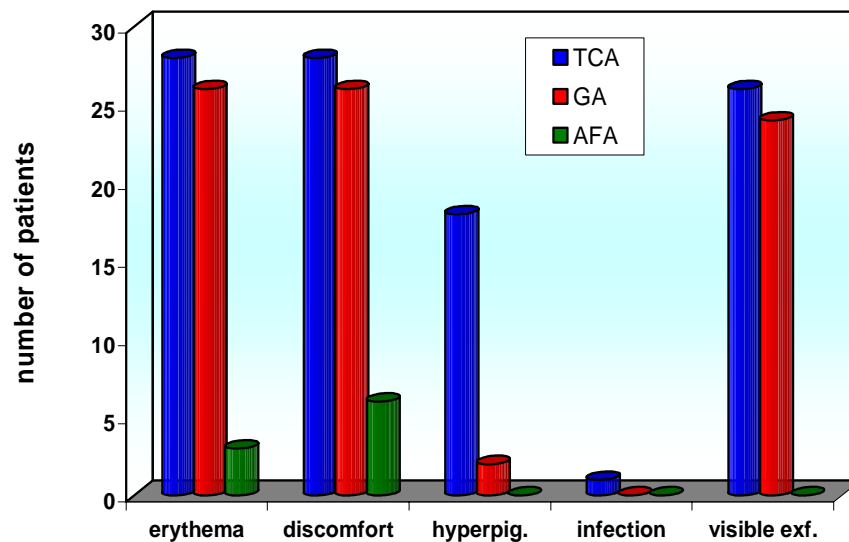
Hyperpigment.	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
Negative	18	60.00	28	93.33	30	100.0	76	84.44
Positive	12	40.00	2	6.67	0	00.00	14	15.56
X <sup>2</sup>	20.9						S	
P	<0.05							

**Table (26): Incidence of bacterial infection after TCA, GA and AFAs peels in all groups of patients.**

Bacterial infection	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n =90)	
	No	%	No	%	No	%	No	%
Negative	29	96.67	30	100.00	30	100.0	89	98.89
Positive	1	3.33	0	00.00	0	00.00	1	1.11
X <sup>2</sup>	2.02						NS	
P	>0.05							

**Table (27): Safety evaluation of the three therapeutic lines in all groups of patients.**

Safety evaluation	TCA (n=30)		GA (n=30)		AFA (n=30)		P-Value
	No	%	No	%	No	%	
Erythema	28	93.33	26	86.67	3	10.00	<0.05
Disomfort	28	93.33	26	86.67	6	20.00	<0.05
Hyperpigment.	12	40.00	2	6.67	0	00.00	<0.05
Infection	1	3.33	0	00.00	0	00.00	>0.05
Visible exf.	26	86.67	24	80.00	0	00.00	<0.05



Safety evaluation of the three therapeutic lines

**Fig. (12): Safety evaluation of TCA, GA and AFAs in the treatment of melasma acne vulgaris and fine wrinkles all groups of patients.**

**Table (28): Incidence of recurrence in the three therapeutic lines in all groups of patients.**

Recurrence	TCA (n=30)		GA (n=30)		AFA (n=30)		Total (n=90)	
	No	%	No	%	No	%	No	%
<b>Melasma</b>								
< 3 months	3	10.0	0	0.0	0	0.0	3	3.33
3-6 months	3	10.0	1	3.33	0	0.0	4	4.44
> 6 months	2	6.67	3	10.0	0	0.0	5	5.56
<b>Total(melasma patients)</b>	8	26.67	4	13.33	0	0.0	12	13.33
<b>Acne vulgaris</b>								
< 3 months	3	10.0	1	3.33	1	3.33	5	5.56
3-6 months	1	3.33	2	6.67	1	3.33	4	4.44
> 6 months	0	0.0	2	6.67	2	6.67	4	4.44
<b>Total (acne patients)</b>	4	13.33	5	16.67	4	13.33	13	14.44
<b>Wrinkles</b>								
< 3 months	0	0.0	0	0.0	0	0.0	0	0.0
3-6 months	2	6.67	0	0.0	0	0.0	2	2.22
> 6 months	1	3.33	1	3.33	1	3.33	3	3.33
<b>Total ( wrinkles patients)</b>	3	10.0	1	3.33	1	3.33	5	5.56
<b>Total</b>	15	50.0	10	33.33	5	16.67	30	33.33
<b>X<sup>2</sup></b>	5.7						NS	
<b>P</b>	>0.05							