Modified Vascularized Interpositional Periosteal Connective Tissue Graft Versus Xenogeneic Collagen Matrix For soft tissue Augmentation Around Implant in Esthetic Zone
(A Comparative Study)

Proposal

Presented By

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Statistical Analysis:

Statistical analysis was performed with IBM® SPSS® (ver. 26. SPSS Inc., IBM Corporation, Armonk, NY, USA). Data explored for normality using Shapiro-Wilk test. Quantitative data were presented by mean and standard deviation. Independent t test was used to compare means between two groups. Paired t test was used to compare between two means before and after treatment within each group. A repeated measure ANOVA is used to compare means in each group across multiple times to see changes to an intervention. A statistically significant level was considered when p value < 0.05.

3. Results:

Twenty patients were recruited in the study, including12 females and 8 males aged between 20 to 40 years; there were no failed implants or withdrawal of any patients during the follow-up period. Every one of the participants had their planned treatment, and all the implants placed osseointegrated successfully. Data are expressed as mean ± standard deviation.

3.1 Clinical Parameters:

3.1.1 keratinized tissue thickness: KTT increased from baseline to 3 , 6 months in both of groups but more improvement seen in mVIP-CT group than in XCM group at 3 and 6month. No significant differences between the study groups at baseline, but at 3 and 6 month the differences were statistically significant

3.1.2 keratinized tissue width: KTW increased from baseline to 3 ,6 months in both groups but was slightly higher in mVIP-CT group than in XCM group at 6 monthswith nonsignificant differences between them at baseline and follow up

3.1.3 pink esthetic score: The aesthetic outcome was measured by Pink Esthetic Score (PES), the comparison between both groups revealed a non-significantly higher results in mVIP-CT group than in XCM group

3.2. Radiographic Parameters:

3.2.1 buccal cortex thickness: increased from baseline to 6 month in both of mVIP-CT group and XCM group with no significant differences between the study groups at baseline and follow up period.

Table (1): Keratinized tissue thickness (KTT) level at different points of time in mVIP-CTG group

KTT	mVIP-CTG group			P value Baseline vs 3 months	P value Baseline vs 6 months	P value 3 months vs 6 months
	Baseline	3 months	6 months			
Mean±SD	1.5±0.53	1.9±0.41	2.8±0.56	0.9	0.001*	0.01*

Table (2): Keratinized tissue thickness (KTT) level at different points of time in XCM group

KTT	XCM group			P value Baseline vs 3 months	P value Baseline vs 6 months	P value 3 months vs 6 months
	Baseline	3 months	6 months			
Mean±SD	1.4± 0.67	1.5±0.40	2.0±0.55	0.1	0.2	0.5

Keratinized tissue thikness across different points of time
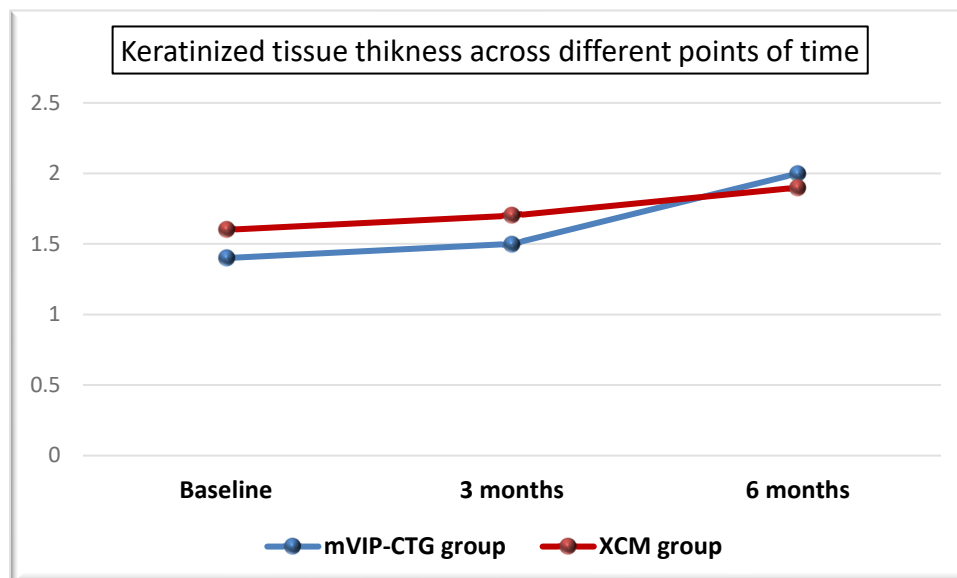
Table (3): Keratinized tissue thickness (KTT) level between groups

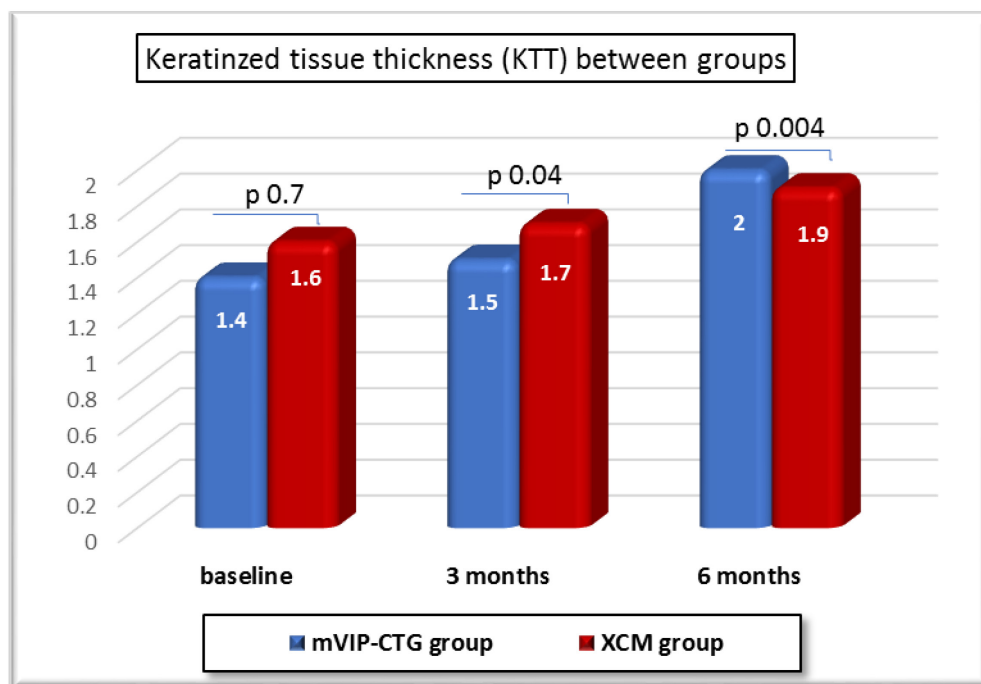| KTT	Groups		P value
	mVIP-CTG (n= 10) Mean±SD	XCM (n=10) Mean±SD	
At baseline	1.5±0.53	1.4±0.67	0.7
3 months	1.9±0.41	1.5±0.40	0.04
6 months	2.8±0.56	2.0±0.55	0.004

Keratinzed tissue thickness (KTT) between groups

Table (4): Keratinized tissue width (KTW) level at different points of time in mVIP-CTG group

KTW	mVIP-CTG group			P value Baseline vs 3 months	P value Baseline vs 6 months	P value 3 months vs 6 months
	Baseline	3 months	6 months			
Mean±SD	1.4±0.52	1.5±0.53	2.0±0.84	0.9	0.07	0.1

Table (5): Keratinized tissue width (KTW) level at different points of time in XCM group

KTW	XCM group			P value Baseline vs 3 months	P value Baseline vs 6 months	P value 3 months vs 6 months
	Baseline	3 months	6 months			
Mean±SD	1.6±0.52	1.7±0.52	1.9±0.68	0.6	0.2	0.4

Keratinized tissue width across different points of time
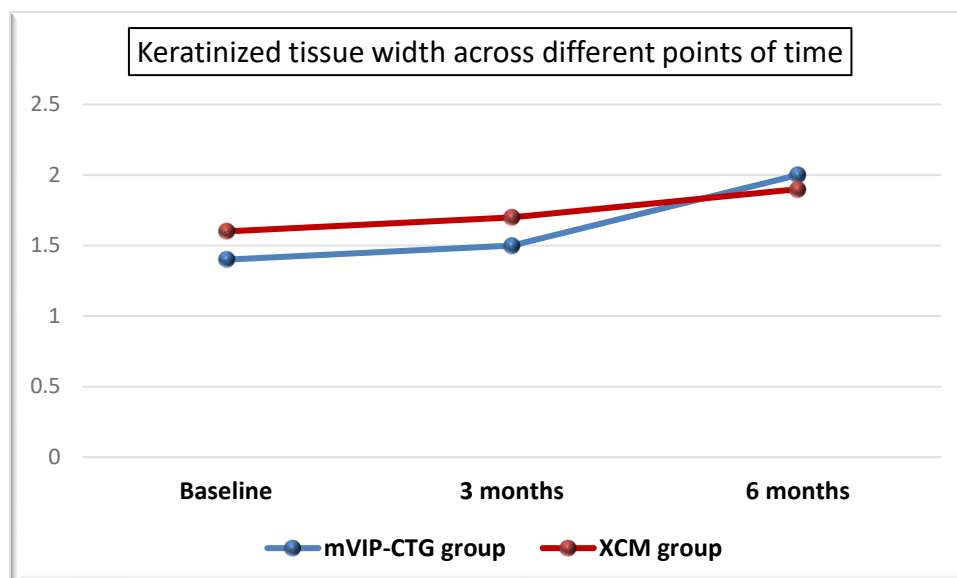
Table (6): Keratinized tissue width (KTW) level between groups

KTW	Groups		P value
	mVIP-CTG (n= 10) Mean±SD	XCM (n=10) Mean±SD	
At baseline	1.4±0.52	1.6±0.52	0.3
3 months	1.5±0.53	1.7±0.52	0.4
6 months	2.0±0.84	1.9±0.68	0.7

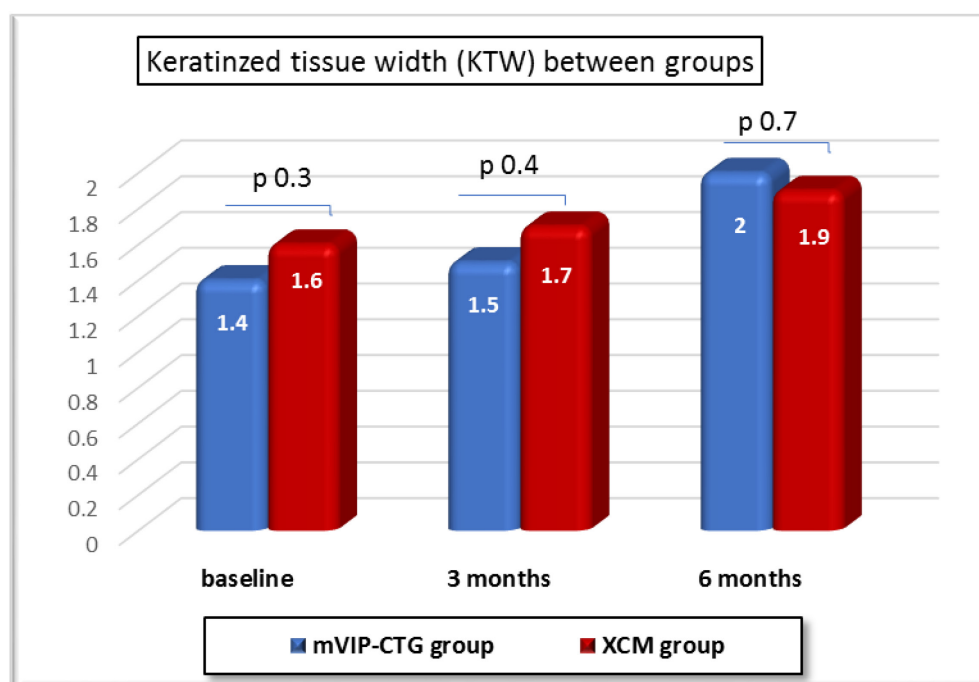
Keratinzed tissue width (KTW) between groups

Table (7): Buccal cortex thickness level at baseline and after 6 months in mVIP-CTG group

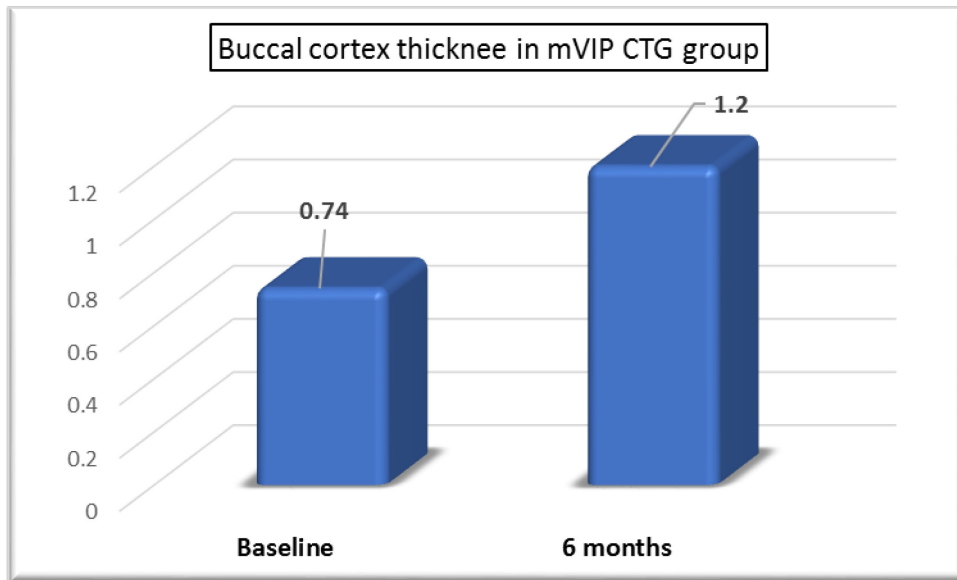| Buccal cortex thickness	mVIP-CTG group		Mean differenc e	P value
	Baseline	6 months		
Mean±SD	0.744±0.33	1.207±0.16	-0.463	0.01

Table (8): Buccal cortex thickness level at baseline and after 6 months in XCM group

Buccal cortex thickness	XCM group		Mean differenc e	P value
	Baseline	6 months		
Mean±SD	0.92±0.32	0.97±0.31	-0.054	0.6
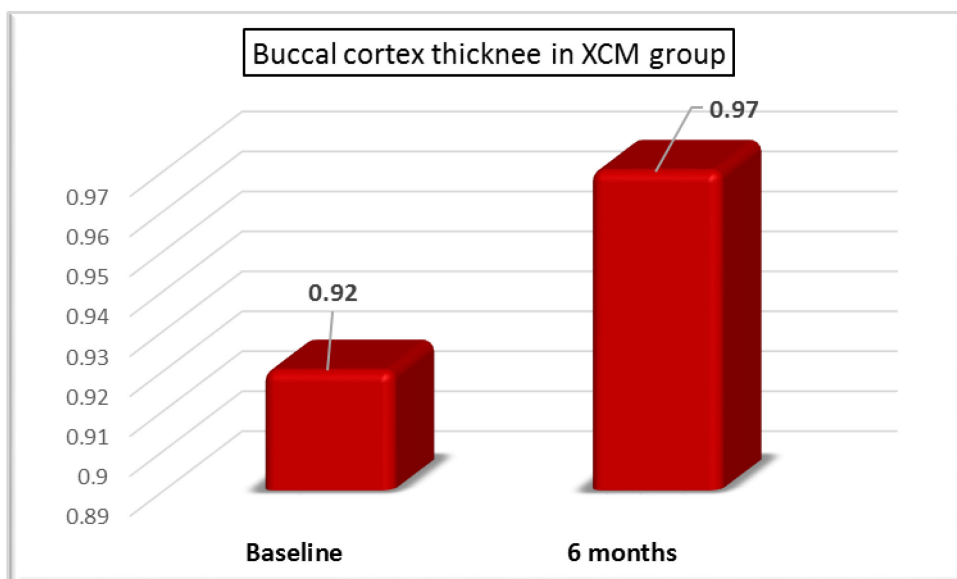
Table (9): Buccal cortex thickness level between groups

Buccal cortex thickness	Groups		P value
	mVIP-CTG (n= 10) Mean±SD	XCM (n=10) Mean±SD	
At baseline	0.744±0.33	0.92±0.32	0.2
6 months	1.207±0.16	0.97±0.31	0.06
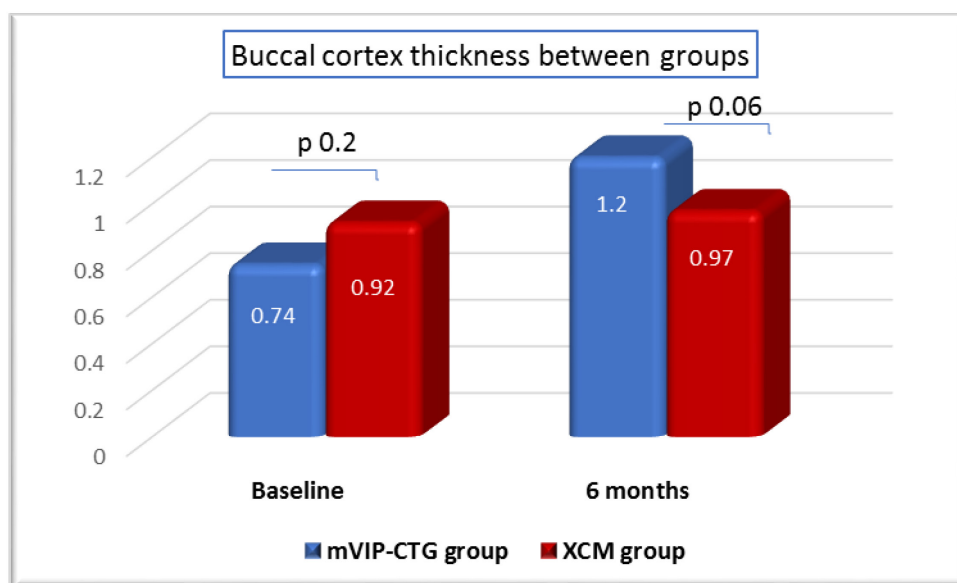
Table (10): Pink esthetic score (PES) between groups

	Groups		P value
	mVIP-CTG (n= 10) Mean±SD	XCM (n=10) Mean±SD	
Pink esthetic score (PES)	6.8±0.57	6.3±0.53	0.06