

Additional file 1 – Raw data of sample size, power and effect size of the study

Sample size calculation using G\*Power software (version 3.1.9.2)

Raw data of the pilot study

Patient name	Mean plaque index		
	Placebo	CHX	Test
Mazin	2.24	1.78	1.22
Sadam	1.269	1.288	0.884
Zohaib	1.517	1.375	1.232
Nashwan	0.892	0.91	0.178
Tamem	1.714	1.5	1.017
Average	1.526	1.371	0.906
SD	0.503	0.318	0.432

[1] -- Tuesday, October 13, 2015 -- 21:05:31

t tests – Means: Wilcoxon–Mann–Whitney test (two groups)

Options: A.R.E. method

Analysis: A priori: Compute required sample size

Input: Tail(s) = One  
Parent distribution = Normal  
Effect size d = 1.3223961  
 $\alpha$  err prob = 0.05  
Power (1– $\beta$  err prob) = 0.95  
Allocation ratio N2/N1 = 1

Output: Noncentrality parameter  $\delta$  = 3.4189777  
Critical t = 1.7088367  
Df = 24.7380304  
Sample size group 1 = 14  
Sample size group 2 = 14  
Total sample size = 28  
Actual power = 0.9533660

**power and effect size of the study calculation using G\*Power software (version 3.1.9.2)**

- 1- placebo & CHX
- 2- placebo & test
- 3- CHX & test

[1] -- Tuesday, October 13, 2015 -- 19:58:13

**t tests** – Means: Wilcoxon–Mann–Whitney test (two groups)

**Options:** A.R.E. method  
**Analysis:** Post hoc: Compute achieved power  
**Input:** Tail(s) = One  
Parent distribution = Normal  
Effect size d = 0.2873942  
 $\alpha$  err prob = 0.05  
Sample size group 1 = 14  
Sample size group 2 = 14  
**Output:** Noncentrality parameter  $\delta$  = 0.7430409  
Critical t = 1.7088367  
Df = 24.7380304  
Power (1- $\beta$  err prob) = 0.1782583

[2] -- Tuesday, October 13, 2015 -- 19:59:18

**t tests** – Means: Wilcoxon–Mann–Whitney test (two groups)

**Options:** A.R.E. method  
**Analysis:** Post hoc: Compute achieved power  
**Input:** Tail(s) = One  
Parent distribution = Normal  
Effect size d = 1.1580331  
 $\alpha$  err prob = 0.05  
Sample size group 1 = 14  
Sample size group 2 = 14  
**Output:** Noncentrality parameter  $\delta$  = 2.9940268  
Critical t = 1.7088367  
Df = 24.7380304  
Power (1- $\beta$  err prob) = 0.8971951

[3] -- Tuesday, October 13, 2015 -- 20:00:41

**t tests** – Means: Wilcoxon–Mann–Whitney test (two groups)

**Options:** A.R.E. method  
**Analysis:** Post hoc: Compute achieved power  
**Input:** Tail(s) = One  
Parent distribution = Normal  
Effect size d = 1.0773888  
 $\alpha$  err prob = 0.05  
Sample size group 1 = 14  
Sample size group 2 = 14  
**Output:** Noncentrality parameter  $\delta$  = 2.7855257  
Critical t = 1.7088367  
Df = 24.7380304  
Power (1- $\beta$  err prob) = 0.8561572