

Online Resource 11

Statistical evaluation (by McNemar test) of PAP test after 4 months of treatment in the probiotic group and in the placebo one.

Probiotic group		PAP TEST at T=4		
		Negative	Positive	Total
PAP TEST at T=0	Negative	26	2	28
	Positive	12	0	12
	Total	38	2	40
McNemar test: $X^2 = 5.8$ with $p < 0.001$				

Placebo group		PAP TEST at T=4		
		Negative	Positive	Total
PAP TEST at T=0	Negative	15	0	15
	Positive	5	2	7
	Total	20	2	22
McNemar test: $X^2 = 3.2$ not significant				

The McNemar test is a statistical test used to analyze paired categorical data, often from studies with repeated measures. It is primarily used to assess whether there is a significant difference between two correlated conditions or binary variables. It is used to test whether a treatment has had a significant effect by comparing two measurements (before and after the treatment). The test only considers cases where there are discrepancies, that is, when observations change from one category to another (in our test from "positive" to "negative"). In the tables, Positive means both ASCUS and LSIL.