DETECTION OF MICROSATELLITE INSTABILITY IN GASTRIC CARCINOMAS, USING THE AMPF/STR™ PROFILER PLUS™ PCR AMPLIFICATION KIT

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The characterization of polymorphic STRs among human cancers, is sometimes restrained by the absence of population studies that can give the normal counterpart for the observed mutation rates. Thus in order to get some insight about dynamics of microsatellite instability in 56 gastric carcinomas we used AMPF/STR™ Profiler Plus™ PCR amplification kit. Given the available populational data available for those markers, we used 56 cases of gastric carcinoma. The instability and LOH rates obtained comparing for each case tumor vs normal tissue are summarized in table 1. No particular genotypes/alleles were found to be more prone to mutation.

TABLE 1

(%)	D3S1358	vWA	FGA	D8S1179	D21S11	D18S51	D5S818	D13S317	D7S820
Instability	12.2	21.3	7.3	13.9	2.5	18.5	14.3	16.3	11.8
LOH	4.9	4.3	9.7	6.9	12.5	11.1	14.3	16.3	5.9
HW (p-value)	20.2	50.8	0.2	23.4	81.9	60.1	61.2	48.4	17.4

No significant deviations for Hardy-Weinberg proportions were found with an exception for FGA marker (p=0.002). Furthermore allelic profiles for patients' normal tissues and a normal population (control sample from the same geographic area) were compared, in order to detect cancer susceptibility genotypes. The obtained results have shown that D3S1358 and D7S820 present significant differences (p=0.031 and p=0.022) between the allele distributions of normal individuals and cancer patients.