

Detection of Codon 12/13 g.6262G>A Mutation of H-ras Gene in Iraqi Bladder Carcinoma Patients

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Abstract: DNA was extracted from blood and urine samples from 45 patients with bladder carcinoma (age 20-87 years) in addition to samples from 25 apparently healthy persons as controls. Restriction fragment length polymorphism (RFLP) analysis was performed to determine genotypes of the H-ras codons 12,13 using Msp1 enzyme. The healthy results showed that two fragments (165 bp and 55 bp) were produced from the digestion with the enzyme for H-ras codon 12/13. These results indicated that the PCR amplified region of the codon 12/13 has one restriction site for the enzyme Msp1. The molecular analysis of the patient samples revealed that among 45 patients included in this study, 28 patients (62.2%) were with normal pattern (165 bp and 55 bp) and 17 patients (37.8%) were homozygous mutants (g.6262G>A). The frequency of g.6262 C>G mutation in patients was significantly higher than in apparently healthy subjects (37.3% versus 0%, OR= 0.033; X²=0.966*, P<0.01)

Key words: Bladder carcinoma, H-ras, MSP1, RFLP, g.6262G>A