H-Ras alterations in papillary thyroid cancer: a pilot clinicopathological study

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<u>Background:</u> The prevalence of RAS genes mutations in papillary thyroid cancer (PTC) varies widely. The aim is to study the prevalence of H-ras mutations in papillary thyroid cancer from patients in Gold Coast in relation to the clinicopathologic parameters.

Method: DNA was extracted from the 19 patients (17 females; 2 males) with papillary thyroid carcinomas. They were analysed for point mutation in codons 12/13 and 61 of the H-Ras gene by polymerase chain reaction.

Results: The mutations of either of the H-RAS codons 12/13 or 61 were noted in 63% (12 out of 19) PTC. The mutations in the codon12/13 were noted in 50% of the PTC whereas in the codon 61 were noted in one third of the PTC. Three patients showed mutations in both sites of the gene. The H-Ras mutation in codon 12/13 was more often noted in patients with advanced T-stage lesion (p=0.023).

<u>Conclusion</u>: H-Ras mutations are common in PTC and mutations may be related to the clinical aggressiveness of the tumour.