As the image is not completely visible, I will extract and transcribe the readable portion of the text:

**ABSTRACT**

Objectives: To explore insulin-like growth factor-I (IGF-I) promoter region CA repeat polymorphisms in thyroid cancers. Previous studies have shown that the insulin-like growth factor system (IGF system) in cancer is a key factor in regulating cell proliferation, differentiation, hormone production and responsiveness to stimuli. The IGF system has been shown to be critical to many aspects of differentiated thyroid cancer (DTC) risk. Studies have suggested that the IGF-1 genotype is associated with higher circulating levels of IGF-1 when compared to those who have levels significantly lower than the norm. The purpose of this study was to determine if polymorphism in the IGF-1 promoter region is associated with DTC risk.

Methods: We retrospectively studied 199 patients with DTC (N=199) and 132 patients with benign thyroid disease (BTD; N=132). Patients (N=331) presenting to the head and neck surgery clinic between November 1999-December 2005 with a diagnosis of DTC (N=199) or BTD (N=132) were recruited. Control subjects (N=399) were part of a larger control group (N=500) accrued for a case-control molecular epidemiology study. The study was powered to detect an overall risk of OR=1.65 for DTC; and a minimum risk effect of OR =1.79 for BTD. No differences in genotype distribution (including repeat polymorphisms) were found between cases and controls. The study included 10 cases and controls who were identified by a prospective case-control design. The study was limited to individuals of non-Hispanic white descent, and inclusion criteria were identical for cases and controls.

RESULTS: The molecular epidemiologic case-control study examined the frequency of IGF-I promoter region CA repeat polymorphisms in an existing case-control database of non-invasive carcinomas of the head and neck. Only non-Hispanic white individuals were included in the study. Patients were classified as either IGF-1 promoter region CA repeat polymorphism 19/19, 19/19, or 19/19. The study included 10 cases and controls who were identified by a prospective case-control design. The study was limited to individuals of non-Hispanic white descent, and inclusion criteria were identical for cases and controls.

**DISCUSSION**

To date, this study is the largest to evaluate IGF-I repeat polymorphisms and risk of DTC. Additionally, we were able to include BTD as an intermediate group for comparison because such cases may be presumed to be non-DTC. In this way, it is possible to evaluate the potential role of IGF-I polymorphisms and risk of DTC.

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**REFERENCES**