

Epidemiological, Clinical and Histopathological Study of Basal Cell Carcinoma of the Eyelid

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Abstract of the thesis

This study examines the incidence of basal cell carcinoma (BCC) of the eyelid in Finland, and analyses the influence of age, sex, geographical location, social class and occupation on incidence rate. The present work is based on 6,241 cases of BCC of the eyelid reported to the nationwide Finnish Cancer Registry. This is the first nationwide study of this condition based on register data within the Caucasian population. The case records of 218 patients with malignant non-melanoma neoplasms of the eyelid were gathered from the Turku University Eye Clinic patient records for years 1977–1997. Histological characteristics of neoplasms from patients treated in the Turku University Eye Clinic in years 1988 to 1997 were re-evaluated and classified according to subtype.

The mean annual incidence rates of BCC of the eyelid in Finland showed a statistically significant increase, from 0.7 to 3.0 per 100,000 person-years in men and from 0.5 to 2.8 per 100,000 person-years in women, during the study period 1953 to 1997. The incidence rates of BCC of the eyelid increased from 0.8 to 2.9 per 100,000 person-years in south-western Finland in the period 1977 to 1997. The incidence rate of BCC of the eyelid increased significantly with age. There were

no statistically significant differences in the incidence rates of BCC of the eyelid between urban, semi-urban and rural populations, nor in the standardized incidence ratios (SIRs) between different social classes and occupational categories. During the study period 90.2% of patients diagnosed with BCC of the eyelid in the Turku University Eye Clinic in years 1977 to 1997 were treated surgically. The recurrence rate of all surgically treated tumours was 13.7%. Other treatment methods were radiation therapy and cryotherapy. The most frequent histopathological subtype of BCC of the eyelid was nodular BCC, at 84.5%. Only the nodular subtype showed recurrences among patients with BCC of the eyelid.

These results show that the incidence of BCC of the eyelid increased remarkably during the study period. According to the literature the nodular subtype is regarded as the least aggressive subtype of BCC. However, in this study nodular BCC had a high recurrence rate despite surgical treatment. Thus, histopathological examination and subtyping of all BCC tumours of the eyelid is recommended.

Key words: basal cell carcinoma, eyelid, epidemiology, Caucasian, incidence, follow-up, location, recurrence, treatment, histopathological classification.