Keratinocyte Carcinoma May be More Important than Previously Thought

Keratinocyte carcinoma, or non-melanoma skin cancer, is by far the most common type of cancer but because it is rarely fatal its public health importance is often overlooked. Research by Anthony Alberg and his colleagues indicate that keratinocyte carcinoma may be even more important than we thought, because it may be a marker of increased risk for developing almost all other types of cancer.

Recently published findings from Alberg and his team reinforce this impression. Results of a study in a nationally representative cohort published in *Cancer Causes and Control* showed that those with a personal history of skin cancer had a statistically significant 1.3-fold increased risk of all other types of cancers compared with those with no personal history of skin cancer. When a family history (rather than personal history) of skin cancer was studied, this association was not observed.

If keratinocyte carcinoma is truly a marker of increased risk of other cancers, one would expect to see a dose-response relationship whereby risk of other cancers increases as the number of skin cancer lesions increases. In a clinic-based study to investigate for the presence of a dose-response relationship, Alberg and colleagues compared the number of actual keratinocyte carcinoma lesions in patients with a personal history of keratinocyte carcinoma plus another type of cancer to a carefully matched group of patients with a personal history of keratinocyte carcinoma but no other forms of cancer.

The findings of this study, published in *Anticancer Research*, indicated the mean number of keratinocyte carcinoma lesions was 41% greater among those with KC plus another cancer than for those with KC only, and that the odds of being in the group with KC plus another cancer tended to increase as the number of skin cancer lesions increased. However, due to the small sample size (n=48 matched pairs) these difference were not statistically significant.

Based on these findings Alberg and his colleagues concluded the results were compatible with a dose-response relationship and larger studies of this question are warranted to more precisely determine this risk. If confirmed, this line of inquiry has translational implications for the clinical setting, as it would support the idea of risk stratification of skin cancer patients according to the number of skin cancer lesions for subsequent cancer surveillance for other types of cancer.