



DERMOSCOPY AND SKIN IMAGING

THE EXPERIENCE OF USING THE METHOD OF DERMATOSCOPY IN A COMPREHENSIVE STUDY OF THE SKIN OF PEOPLE LONG-TERM LIVING IN THE AREA OF INDUSTRIAL POLLUTION

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Introduction: the paper examines the problems of long-term effects (over 50 years) of small doses of radiation on human skin.

Objective: to study the regional structure and prevalence of dermatosis in persons long-term living near uranium tailings.

Materials and methods: for the period of 2003-2018 complex examination of 2871 people: clinical, histological, dermatoscopic, immunological, microbiological, statistical, including analysis of the structure and prevalence of skin tumors in the regions.

Results: 3444.4 person-years of observation were performed; the median observation time was 54 months (range from 24 to 84). Age at the time of joining the cohort 30.0 years (24.5; 38.0). A total of 5350 skin neoplasms were investigated, 17087 digital photographs were archived. Benign tumors in the exposed group are represented by: epidermal 58.2% (95% confidence interval (CI) 56.5–59.9); melanocytic formations - 4.51% (95% CI 3.8 - 5.24); non-tumor pigmentation - 10.7% (95% CI 9.6 - 11.7); vascular tumors, malformations 17.7% (95% CI 15.8 - 18.5); fibrous formations of 5.2% (95% CI 4.4 - 6.0). Melanoma and non-melanoma cancers 1.5% (95% CI 1.06-1.93). A distinctive feature in the exhibited group was the presence of signs of poikiloderma, marked skin xerosis, seborrheic keratosis, senile angioma, keratoderma of the palms and soles, onychodystrophy, early hair thinning and gray hair.

Conclusions: the prolonged effect of low doses of radiation contributes to earlier (at 32.7 ± 1.52 years compared with the control group 45.2 ± 1.29 years) manifestations of signs of gerontogenesis. The obtained data can become a model for the development of algorithms in the case of radiation hazard.

