

THE ETIOLOGY OF MELANOMA

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Abstract

The main purpose of this project was to find a possible explanation for the steadily increasing incidence of melanoma in Western countries since the mid-20th century. A secondary purpose was to develop models with predictive value in order to estimate future melanoma trends. Results indicate that the immune defense system for cell repair and apoptosis was disrupted by body-resonant broadcasting radiation from FM towers, and that this disturbance can fully explain both local and temporal variations in melanoma incidence and mortality.

Introduction

In May 1998 the author became aware that at the end of the 1950's, there was a sudden increase in melanoma incidence in Sweden; this coincided with a time when the country was in the midst of the process of gradually becoming covered with FM and TV broadcasting towers. This realization led to a study comparing Nordic countries with the USA to see if there was any association between melanoma incidence and the appearance of large numbers of FM broadcasting towers. A second, later study investigated the geographical variation of melanoma incidence in Sweden and its possible correlation with the geographical variation of other cancers. In a third study, melanoma incidence over time was compared with the advent of FM broadcasting in Swedish counties and with increasing habits of taking charter travels to sunnier resorts. A fourth study investigated if melanoma incidence could successfully be modeled as a response to sudden changes in environmental stress. A theory and model to explain the increased incidence of melanoma were then developed, and the model was then refined to take into account the observation that UV radiation-induced cell damage is cumulative but normally compensated for by a cell repair process that was assumed to have become less efficient from a specific point in time.

Summary

An initial study showed that Nordic countries and the USA both appeared to have the same exposure-time-specific incidence of melanoma, despite the fact that the advent and subsequent spread of FM transmitter appearance differed among the different countries [1]. A second study showed that the incidence of some cancers correlated with variations in melanoma incidence across the Swedish counties, while others (e.g. leukemia) did not [2]. Melanoma also appeared to persist at a low and stable incidence in the counties as long as FM transmitters had not yet been substantially introduced. Mortality from existing cases of melanoma showed an immediate increase that correlated with the introduction of FM broadcasting towers, and the incidence of new cases started to increase a few years after the spread of FM towers [3]. Melanoma incidence appeared to be significantly correlated with the number of main FM towers simultaneously covering an area [4]. A model for melanoma incidence was developed based on a statistical distribution of the time from the introduction of FM broadcasting until the onset of melanoma [4, 5]. Finally, it was also shown that a model based on a precipitous decrease in the efficiency of the immune defense system (presumably caused by FM broadcasting towers) was able to accurately predict the reported age-standardized incidence and age-specific incidence of melanoma for all birth cohorts during the 20th century [6].

The project concluded that body-resonant radiation from FM broadcasting towers may disturb cell repair and apoptosis processes and that this may be one of the most important factors behind the observed increase in melanoma rates in the Nordic countries. Normal broadcasting radiation is not likely to be able to cause cellular damage *de novo*, but may be able to weaken defenses against cellular damage that may be caused by pervasive "natural" sources such as UV exposure etc. It would seem logical to extend this study to similarly review lung cancer and breast cancer to examine the possibility of a correlation between these cancers and FM broadcasting radiation.

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