



HAL
open science

Prospective association between dietary folate intake and skin cancer risk: results from the SU.VI.MAX cohort

Mathilde Touvier, Mélanie Deschasaux, Paule Latino Martel, Abou Diallo, Pilar Galan, Serge Hercberg, Khaled Ezzedine, Mathilde Donnenfeld

► To cite this version:

Mathilde Touvier, Mélanie Deschasaux, Paule Latino Martel, Abou Diallo, Pilar Galan, et al.. Prospective association between dietary folate intake and skin cancer risk: results from the SU.VI.MAX cohort. IARC's 50th Anniversary, Jun 2016, Lyon, France. , 518 p., 2016, IARC's 50th Anniversary "Cancer: Occurrence, Causes, Prevention". Abstracts. hal-02740341

HAL Id: hal-02740341

<https://hal.inrae.fr/hal-02740341v1>

Submitted on 2 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

B-072 - Prospective Association Between Dietary Folate Intake And Skin Cancer Risk: Results From The SU.VI.MAX Cohort

MATHILDE TOUVIER, SORBONNE PARIS CITÉ EPIDEMIOLOGY AND STATISTICS RESEARCH CENTER (CRESS), INSERM U1153, INRA U1125, CNAM, PARIS 13 UNIVERSITY, FRANCE
DESCHASAUX M.¹, LATINO-MARTEL P.¹, DIALLO A.¹, GALAN P.¹, HERCBERG S.^{1,2}, EZZEDINE K.³, DONNENFELD M.¹

¹ Sorbonne Paris Cité Epidemiology and Statistics Research Center (CRESS), Inserm U1153, Inra U1125, Cnam, Paris 13 University, Nutritional Epidemiology Research Team (EREN), 93017 Bobigny, France

² Public Health Department, Avicenne Hospital, 93017 Bobigny, France

³ Dermatology Department, Saint André Hospital, 33000 Bordeaux, France

Purpose:

The role of folate in skin carcinogenesis is unclear, with experimental data suggesting potentially protective but also deleterious effects. Our main objective was to investigate the prospective association between dietary folate intake and risks of skin cancer (overall), nonmelanoma skin cancer (NMSC), and basal cell carcinoma (BCC). As an exploratory analysis, we also investigated the prospective association between erythrocyte folate concentration and skin cancer risk.

Methods:

In this study, we included 5880 participants in the Supplémentation en Vitamines et Minéraux Antioxydants (SU.VI.MAX) cohort (follow-up: 1994–2007) who completed at least six 24-h dietary records during the first 2 y of the study. Associations between sex-specific tertiles of dietary and erythrocyte folate and skin cancer risk were assessed by using multivariate Cox proportional hazards models.

Results:

After a median follow-up of 12.6y, 144 incident skin cancers were diagnosed. Dietary folate intake was associated with increased risk of overall skin cancer ($HR_{T3vs.T1}=1.79$ (1.07-2.99); P-trend=0.03), NMSC ($HR_{T3vs.T1}=1.85$ (1.06-3.23); P-trend=0.03), and BCC ($HR_{T3vs.T1}=1.78$ (0.98-3.24); P-trend=0.05). This association was observed in women (corresponding P-trend=0.007, 0.009, and 0.009, respectively) but not in men. P-interaction values between tertiles of dietary folate intake and sex were 0.04, 0.02, and 0.02 for overall skin cancer, NMSC, and BCC, respectively. Erythrocyte folate concentration also was directly associated with increased risk of skin cancer (overall, NMSC and BCC).

Conclusions:

This prospective study suggests an association between dietary folate intake and erythrocyte folate concentration and increased risk of overall skin cancer, NMSC, and BCC. These results are in line with 2 previous large prospective studies on BCC and with mechanistic data suggesting a potentially deleterious effect of folate in carcinogenesis.

Am J Clin Nutr 2015, 102:471–8.

Funding source:

French Ministry of Research and Higher Education, internship grant (Mathilde Donnenfeld)
Cancéropôle Ile-de-France, Ile-de-France Region, PhD grant (Mélanie Deschasaux)