A significant proportion of American adults use statin medications. Two separate sets of current guidelines published in 2013 by the American College of Cardiology (ACC)/American Heart Association (AHA) and in 2016 by the US Preventive Services Task Force (USPSTF) recommend that even more Americans be prescribed the drugs. Estimates based on these recommendations indicate that there could be from 17.1 (USPSTF) to 26.4 (ACC/AHA) million US adults prescribed statin therapy in the near future.\(^1\)

For dermatologists, the widespread use of statins is of interest because of a potential association of these drugs with increased risk for skin cancer. In the last edition of this column, I assessed the risk for non-melanoma skin cancer (NMSC) associated with use of another common drug, hydrochlorothiazide. (You can read that article online at PracticalDermatology.com/2018/07.) Here, I’ll assess the latest findings related to the risks for NMSC associated with statins.

STATINS UNDER SCRUTINY

Although statins have been associated with increased risk for basal cell carcinoma (BCC) and squamous cell carcinoma (SCC), any relationship has been unclear. In the Women’s Health Initiative Cohort, use of statins, particularly lipophilic statins, was associated with increased NMSC risk in postmenopausal white women.\(^2\) However, Danish researchers in 2015 found that statins were not associated with an increased risk of SCC. According to that analysis, statin use was marginally associated with a risk for BCC.\(^3\) A 2009 analysis of patients diagnosed with BCC failed to find an association with skin cancer and statin use.\(^4\)

In attempts to better understand a potential association between statins and NMSC risk, researchers undertook a more comprehensive analysis using data from the Nurses’ Health Study and Health Professionals Follow-up Study.

During follow-up (2000-2010), a total of 10,201 cases of BCC, 1,393 cases of SCC, and 333 cases of melanoma were documented in the cohort. History of high cholesterol level...
Other Common Agents Associated with NMSC

ACEIs, ARBs, and TZs. A matched cohort study found that among 27,134 patients exposed to an angiotensin-converting-enzyme inhibitor (ACEI), 87 developed melanoma, 533 BCC, and 182 SCC. Among 13,818 patients exposed to an angiotensin-receptor blocker (ARB), 96 developed melanoma, 283 BCC, and 106 SCC. Among 15,166 patients exposed to a thiazide, 99 developed melanoma, 262 BCC, and 130 SCC.

Significant associations were found for melanoma and TZs and ARBs. ARBs, ACEIs, and TZs were significantly associated with SCC.

Caffeine. In light of animal studies suggesting that caffeine administration helps prevent SCC development, researchers sought to explore the relationship between caffeine consumption and skin cancer risk. Using data from the Nurses’ Health Study and the Health Professionals Follow-up Study, they prospectively examined cases of BCC (22,786 cases), SCC (1,953 cases), and melanoma (741 cases) in relation to caffeine intake.

There was a significant inverse association between caffeinated coffee consumption and BCC risk.

Of note, caffeine intake was not found to be associated with risks of SCC or melanoma.

A literature review and meta-analysis of observational studies published until February 2016 involving 37,627 NMSC cases from 13 papers also showed that intake of caffeine and/or of caffeinated coffee was inversely associated with BCC risk.

Dietary fat. Analysis of data from the Nurses’ Health Study (NHS) and the Health Professionals Follow-up Study (HPFS) found that higher polyunsaturated fat intake was associated with risk of SCC and BCC. Higher omega-6 fat intake was associated with risks of SCC, BCC, and melanoma. Omega-3 fat intake was associated with risk of BCC, but not with SCC or melanoma. No other fats were associated with melanoma risk.

Niacin. A prospective analysis of 72,308 women in the Nurses’ Health Study (1984-2010) and 41,808 men in the Health Professionals Follow-up Study (1986-2010) found that total niacin intake was inversely associated with SCC risk. There was a marginally positive association between total niacin intake and BCC risk; higher total niacin intake was also marginally positively associated with melanoma risk in men, but not in women.

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