Links Emerging Between Statins, NSAIDs, and Melanoma Prevention

BY DOUG BRUNK
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CORONADO, CALIF. — Some day patients may reach for Lipitor or Celebrex as a melanoma prevention agent, Dr. Michael E. Ming speculated at the annual meeting of the Pacific Dermatologic Association.

He described the ideal chemopreventive agent for melanoma as one that is effective, has an acceptable toxicity profile, and is already widely available.

One class of agents that could potentially meet those criteria if effectiveness in humans can be demonstrated is statins, which may prevent melanoma by decreasing production of intermediate products such as farnesyl pyrophosphate and geranylgeranyl pyrophosphate in the pathway from 3-hydroxy-3-methylglutaryl coenzyme A (HMG CoA) to cholesterol.

“These intermediate products may activate proteins important in cell growth and cell cycle progression,” Dr. Ming, director of the pigmented lesion clinic at the University of Pennsylvania, Philadelphia, explained.

Supportive evidence comes from several laboratory studies on melanoma cell lines and in mice, and from one clinical trial with melanoma as a secondary outcome (JAMA 1998;279:1653).

“Some of these data fail to show that COX-2 is important in cell transformation in vitro,” Dr. Ming said. “However, some clinical and population-based studies suggest that COX-2 inhibitors might be useful in preventing melanoma.”

One of these studies is the Nurses’ Health Study II (NHSII), which is the largest prospective cohort study of melanoma and statins, including 265,000 women aged 30-55 years. The study started in 1989, and the follow-up period is 15 years.

A subgroup analysis of this study showed a reduced risk of melanoma in women who used statins compared to those who did not use statins. The risk reduction was statistically significant and consistent across different subgroups of women.

In addition, a meta-analysis of 12 randomized controlled trials published in 2015 concluded that statins may reduce the risk of melanoma in women but not in men.

Dr. Ming emphasized that these results are preliminary and need to be confirmed in larger studies. He also noted that further research is needed to understand the mechanisms by which statins may prevent melanoma.

Merkel Cell Ulceration May Indicate Metastasis

BY FRAN LOWRY
Orlando Bureau

TORONTO — Ulceration and depth of invasion should be included in the staging of Merkel cell cancers, as they are for the staging of melanoma, of the American College of Surgeons, said Dr. James Spain, Jr., of the University of Florida.

“The presence of ulceration in Merkel cell cancer appears to be an indication that the tumor has spread. An analysis of 14 Merkel cell cancer cases found that ulceration was significantly associated with metastatic disease. Depth of invasion was also a sign of advanced disease that ‘approached but did not achieve statistical significance,’ said Dr. Spain.”

Dr. Spain noted that Merkel cell cancer is a rare form of cutaneous neoplasms that is known to have a poor prognosis, but there is limited information on staging Merkel cell cancer and no data on the importance of ulceration in the staging of this disease. Therefore, further study is needed to determine the role of ulceration in the staging of Merkel cell cancer.

It is important to note that the study was conducted in a single institution, and the results may not be generalizable to other populations. However, the study provides some preliminary evidence that ulceration and depth of invasion may be important factors in the staging of Merkel cell cancer.

The results of this study are consistent with previous studies that have shown that ulceration and depth of invasion are important factors in the staging of other cutaneous neoplasms, such as melanoma. Therefore, further study is needed to determine the role of these factors in the staging of Merkel cell cancer.