

# Use of Hair Weaves May be Linked to Alopecia

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MIAMI — A strong association was found between the use of sewn-in or glued-in weaves by black women and development of central centrifugal cicatricial alopecia in a retrospective survey.

Investigators did not, however, find a strong association with genetics or other hair-grooming practices, such as the use of hot combs or Jheri curling, as other anecdotal evidence has suggested.

"We don't really know what causes central centrifugal cicatricial alopecia [CCCA]," Dr. Raechele Cochran Gathers said during a poster session at an international symposium sponsored by L'Oréal Institute for Ethnic Hair and Skin Research. "We tell patients that relaxers have been implicated and to limit the amount of heat in pressing or combing."

"The exact etiology is poorly understood and it is likely multifactorial," Dr. Sejal K. Shah, a research fellow at the Skin of Color Center, St. Luke's-Roosevelt Hospital Center in New York City, said during a separate presentation at the meeting. "Most of what we know about CCCA is based on anecdotal evidence."

CCCA is a chronic, progressive, crown- or vertex-centered alopecia that disproportionately affects black women. Most active disease is in the peripheral zone of hair loss, where both clinical and histologic evidence of inflammation is found. And its impact is considerable—CCCA is responsible for more hair loss in African Americans than all other causes of alopecia combined, said Dr. Gathers, a dermatologist at the multicultural dermatology center at Henry Ford Medical Center, Detroit.

"It is a very common and very distressing disease to

these patients," session moderator Leonard Sperling said. "It has an emotional and physical toll that I think is underappreciated."

Dr. Sperling is professor and chair of dermatology at Uniformed Services University, Bethesda, Md.

To explore possible etiologies, Dr. Gathers and Dr. Henry W. Lim, chair of dermatology at Henry Ford Medical Center, developed a seven-page, 20-question hair grooming assessment survey. They compared survey responses from 51 women with biopsy-proven CCCA with 50 controls with no history of alopecia. All participants were treated at the medical center between 2000 and 2007.

Almost 50% of women reported onset by age 40, emphasizing a need for early intervention, Dr. Gathers said at the meeting, which was also sponsored by Howard University, Washington. In addition, some patients may be unaware of initial hair loss—21% of women in the survey were first alerted by their stylist.

Use of extensions or artificial hair appears to be associated with CCCA, as does a history of damage from cornrows or braids, Dr. Gathers said. Those in the CCCA group who wore cornrows and braids with added hair were more likely to report a history of damage than those who did not use these hair care options (odds ratio, 2.7). In addition, those in the CCCA group who wore sewn-in weaves were 5.6 times more likely to report tender scalp and 8.1 times more likely to report uncomfortable pulling compared with controls.

Duration and initiation of these hair care practices made a difference. For every 10 years with cornrows or braids, respondents were 1.6 times more likely to have CCCA.

"Interestingly, women who reported that they wore their hair natural before the age of 20 had an 86% decrease in likelihood to develop CCCA," Dr. Gathers said.

There also was no significant correlation with the use of relaxers, curly perms, or history of burns or raw spots after use of relaxers. People with CCCA were not more likely to report an affected mother, grandmother, aunt, or cousin. However, 46% of CCCA group had a sister with hair loss. "It is unlikely that CCCA is genetic, despite this association in sisters," Dr. Gathers said. "It can be an environmental insult, such as sisters using similar grooming practices."

People with CCCA have premature desquamation of the root sheath in affected follicles. Perifollicular fibrosis, inflammation, and thinning of the epithelium at the isthmus are among the consequences. Then the follicle is replaced with a scar, which is the end of that follicle, Dr. Sperling said.

A meeting attendee asked why CCCA occurs predominantly in the center of the scalp.

"It's only a hypothesis, but it may be that sometime during adulthood, the [inner sheath] defect begins to be expressed," Dr. Sperling responded. A differential mode of expression of this defect in different parts of the scalp may be much like balding.

"There is a need for larger population-based studies in different geographic locales," Dr. Gathers said.

"There is a lot left to be done: Define pathogenesis, epidemiology, and the public health impact, and improve treatment on a rational, scientific basis. We also need to increase public awareness about this disease," concluded Dr. Sperling. ■

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## Few Black Women Seek Help For Hair Care Consequences

MIAMI — Many black women experience adverse events and dissatisfaction stemming from their hair care practices, but few seek medical advice, results of a survey presented at an international symposium sponsored by L'Oréal Institute for Ethnic Hair and Skin Research indicate.

"A few years ago, I noticed scalp and hair conditions were a common complaint among black women in my practice," said Dr. Maria C. Rios, a clinical dermatologist in Montevideo, Uruguay.

"Dermatologists need to recognize scalp and hair conditions associated with some procedures used by this ethnic group," she said.

All 42 adult women (aged 18-60 years) surveyed used chemical or physical hair straightening techniques. Hair and scalp disorders occurred in 70% of respondents.

Following a physical examination and clinical photography, each woman completed a brief questionnaire, in which they rated how satisfied they were with the ethnic or natural aspect of their hair, hair care practices, and any clinical presentations related to hairstyle management.

The majority, 37 women, reported dissatisfaction with the ethnic aspect

of their hair. A total of 26 reported a history of dermatologic lesions or other scalp/hair conditions.

Twenty women experienced irritant contact dermatitis after use of a chemical relaxer. Nine used a commercial brand and 11 used a product with "banana extract."

Although participants reported excellent hair-straightening results with banana extract, all those who used it experienced stinging, burning, itchiness, flaking, and/or pain, Dr. Rios said at the meeting, which was also sponsored by Howard University.

Seven women reported scarring alopecia; five attributed the condition to chemical use, one to thermal hair treatment, and another to both practices. Three participants reported nonscarring alopecia related to their hair care.

One of the 26 women experienced allergic dermatitis after use of a chemical relaxer and hair dye at almost the same time, Dr. Rios said. A total of six women experienced burns, four from chemicals and two from hair ironing. A total of 16 women reported temporary hair loss and breakage. Interestingly, only four of these women sought medical advice. ■

## Many African American Women Cite Their Hairstyle as Exercise Obstacle

MIAMI — Nearly one-third of women of African descent exercise less because they have concerns about hairstyle management, according to a survey presented at an international symposium sponsored by L'Oréal Institute for Ethnic Hair and Skin Research.

"Sweating out their hairstyle and the time to wash, dry, and style their hair were the top two reasons they did not exercise as frequently," Shani F. Smith said. "We believe hair care should be explored as another barrier to exercise in this population."

The obesity epidemic is well known in the U.S. population, and "it is also known that African American women are disproportionately affected," said Ms. Smith, a fourth-year medical student at Wake Forest University, Winston-Salem, N.C. The departments of dermatology and public health collaborated on the survey.

A total of 31% of 103 women indicated they reduced physical activity levels because of concerns over hairstyle management. "They were three times less likely to meet exercise levels [odds ratio, 2.94] if their hairstyle was a concern," Ms. Smith said. Of this group, 88% did not meet physical activity guidelines recommended by the Centers for Disease Control and Prevention or the American College of Sports Medicine.

"Time and motivation are common and ethnically indistinct barriers [to physical activity], but hairstyle management may be a unique barrier for African American women.

Effective physical activity promotion strategies to address this barrier should be utilized," Ms. Smith said at the meeting, which was also sponsored by Howard University.

Half the respondents said they had considered modifying their hairstyle to accommodate exercise, she said. Hair braiding and wearing a ponytail were the leading considerations.

Respondents were aged 21-60 years. Most (72) identified themselves as African American, while 12 were African, 3 were Caribbean or West Indian, and 15 identified themselves as "other black" or of African descent. One person listed multiple ethnic backgrounds, Ms. Smith said.

The women were considered active if they reported 150 minutes of physical activity per week or 30 minutes per day at least 5 days per week. "Although 100% of respondents believe it's important for them and other African American females to exercise, very few are meeting this physical activity cutoff," she pointed out.

"Daily living was the No. 1 reason they engage in physical activity, mostly related to housework or other similar things," said Ms. Smith, who had no relevant conflicts to disclose.

The survey also asked about hair care practices. A total of 42% of the respondents said that they spent more than 1 hour per week on hair care, including regular visits to a salon. ■