Age-Related Prevalence of Dermoscopic Patterns in Acquired Melanocytic Nevus on Acral Volar Skin

A new classification system was proposed based on the age-related dermoscopic global patterns of melanocytic nevus, i.e., a globular pattern predominating in childhood in contrast to a reticular pattern that occurs increasingly with older age. However, these investigations were mainly performed on nonvolar skin. Herein, we investigated the prevalence of dermoscopic patterns in acral acquired melanocytic nevus (AMN) by age.

Methods | This study was approved by the institutional review board of Shinshu University School of Medicine. We retrospectively examined dermoscopic images of AMN located on acral volar skin in patients who visited our clinic between June 2000 and December 2010 (see eMethods in Supplement). These data included previously reported 56 lesions of AMN. We collected lesions presenting at least 4 months after birth to exclude lesions that we previously reported as congenital melanocytic nevus (CMN).

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Table. Acral Acquired Melanocytic Nevus Numbers per Dermoscopic Pattern and Age Group

<table>
<thead>
<tr>
<th>Dermoscopic Pattern</th>
<th>&lt;20</th>
<th>20-39</th>
<th>40-59</th>
<th>&gt;59</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel furrow</td>
<td>53</td>
<td>77</td>
<td>42</td>
<td>16</td>
<td>188</td>
</tr>
<tr>
<td>Fibrillar</td>
<td>23</td>
<td>40</td>
<td>13</td>
<td>3</td>
<td>79</td>
</tr>
<tr>
<td>Nontypical</td>
<td>9</td>
<td>27</td>
<td>17</td>
<td>16</td>
<td>69</td>
</tr>
<tr>
<td>Peas-in-a-pod</td>
<td>22</td>
<td>16</td>
<td>8</td>
<td>1</td>
<td>47</td>
</tr>
<tr>
<td>Latticelike</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Parallel ridge</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Reticular</td>
<td>0</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>Globular</td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Homogeneous</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td>170</td>
<td>94</td>
<td>44</td>
<td>420</td>
</tr>
</tbody>
</table>

Figure. Frequency of Dermoscopic Pattern of Acral Acquired Melanocytic Nevus per Age Group

Ages reported in years.
nontypical pattern increased. There was a significant correlation between the frequency of dermoscopic pattern and age group \((P = .002 \text{ for all})\). Furthermore, the peas-in-a-pod and fibrillar patterns were significantly prevalent in the younger-than-20-years group \((P < .001)\) and the 20-to-39-years group \((P = .046)\), respectively, and less prevalent in the older-than-59-years group \((P = .046 \text{ and } P = .03 \text{, respectively})\). Meanwhile, the nontypical pattern was significantly prevalent in the older-than-59-years group \((P < .001)\) and less prevalent in the younger-than-20-years group \((P = .005)\). There were no significant differences in the frequencies of parallel furrow and latticelike patterns between age groups. Parallel ridge, reticular, globular, and homogeneous patterns were regarded as unsuitable for statistical analysis because of the small sample size.

Discussion | This study revealed that the peas-in-a-pod and fibrillar patterns were common in younger patients, whereas the nontypical pattern was prevalent in older patients. The peas-in-a-pod pattern, previously reported as a characteristic pattern for small CMN,\(^4\) was also observed among AMN, with a significant prevalence in younger generation. In the peas-in-a-pod pattern could be characteristic in volar skin during childhood, similar to the globular pattern in trunk and extremities.\(^5\) In the peas-in-a-pod pattern, dots on the ridges were histopathologically correlated with eliminated nevus cell nests in some cases.\(^3\) Further histopathological examination is essential to reveal the mechanism of age-related dermoscopic pattern as well as age-unrelated pattern. In addition, the frequency of the latticelike pattern was relatively low in this series. One possible reason is that some of the cases with peas-in-a-pod pattern were previously classified into the latticelike or parallel furrow pattern with dots because the peas-in-a-pod pattern was not widely known. Another reason could be the low number of AMN located in the arch area in this series, which is a favorite site of latticelike pattern. The investigation of site-related dermoscopic pattern is also required.

According to the revised 3-step dermoscopic algorithm for the management of acral acquired melanocytic lesions,\(^6\) lesions without typical benign patterns are considered for biopsy if the maximum diameter is more than 7 mm. The nontypical pattern was increased in the group older than 59 years, suggesting that acral AMN in older patients is more frequently considered for biopsy than in younger patients. Knowledge of age-related dermoscopic pattern is useful when examining melanocytic nevus.

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Acquisition of data: Minagawa.

Analysis and interpretation of data: Minagawa, Uhara, Yokokawa, Okuyama.

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Critical revision of the manuscript for important intellectual content: Minagawa, Uhara, Yokokawa, Okuyama.

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Administrative, technical, and material support: Okuyama.

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OBSERVATION

Corkscrew Hair: A Trichoscopy Marker of Tinea Capitis in an Adult White Patient

Corkscrew hairs (CHs) were first described by Hughes et al\(^1\) as trichoscopy marker for diagnosis of tinea capitis (TC) in black children. However, we recently observed the same trichoscopic picture in an adult Italian white male.

Report of a Case | A healthy, 58-year-old white man, with skin phototype III, presented with a 2-week history of an itchy and inflammatory patch of alopecia, clinically characterized by large follicular pustules on the occipital and left retroauricular area (Figure 1). The remainder of the physical examination was negative for disease.

Digital trichoscopic images were collected using a video dermatoscope (FotoFinder dermoscope, FotoFinder Systems GmbH) with \(\times 20\), \(\times 40\), and \(\times 70\) magnifications showing comma hairs and a considerable number of corkscrew hairs (Figure 2). Findings from a swab were negative for bacteria, while fungal cultures of scalp scrapings identified Trichophyton tonsurans.

Discussion | While Hughes et al\(^1\) questioned whether CH is a variation of comma hair in the hair types of black patients or is specific to those with Trichophyton soudanense infection, other authors showed that CH is not specific to those with T soudanense...