Risk of Malignancy in Follow-up of Atypical Glandular Cell in Cervical Pap Smears: An Institutional Review in an Independent Lab

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Objective

• Detecting glandular lesions in cervical smears is more important nowadays, and was included in the continuous education program since 10 years ago in Taiwan.
• This study aims to investigate the correlation between tissue biopsies and Pap smears in patients with AGC.

Methods

• In-house review of 2015 Pap smear archive
• Cases with cytology diagnosis of AGC, including Category 5, “AGC”, and category 15, “AGC, favor neoplasm” were retrieved.
• The follow-up results from biopsies were collected from
  1) In-house specimens
  2) The nationwide correlation database established by Health Promotion Administration, Ministry of Health And Welfare, Taiwan.
• The risk of malignancy was calculated and Fisher’s exact test was applied for comparison between Category 5 and 15.

Results

➢ A total of 165 AGC cases was retrieved, including 145 (87.9%) cases of Category 5 (Fig. 1) and 20 (12.1%) cases of Category 15 (Fig. 2).
➢ Only 27 (16.4%) cases have follow-up results. The cytology-histology correlation is listed in Table 1.
➢ The distribution of follow-up results among Category 5 and 15 reveals significant difference (P=0.047).
➢ The risk of malignancy of AGC is 7.4% in our institute while that in nationwide database is 15.0%

Table 1. The cytology-histology correlation in AGC cases

<table>
<thead>
<tr>
<th>Cytology Category</th>
<th>Histology Dx</th>
<th>Category 5 (n=21)</th>
<th>Category 15 (n=6)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benign</td>
<td></td>
<td>14</td>
<td>2</td>
<td>16 (59.26)</td>
</tr>
<tr>
<td>LSIL</td>
<td></td>
<td>7</td>
<td>0</td>
<td>7 (25.9)</td>
</tr>
<tr>
<td>Glandular dysplasia</td>
<td></td>
<td>0</td>
<td>2</td>
<td>2 (7.4)</td>
</tr>
<tr>
<td>Adenocarcinoma</td>
<td></td>
<td>0</td>
<td>2</td>
<td>2 (7.4)</td>
</tr>
</tbody>
</table>

AGC, atypical glandular cell; Dx, diagnosis; LSIL, low grade intraepithelial lesion

Conclusion

• No glandular dysplasia or neoplasia found in follow-up biopsy with previous cytology Category 5
• Compared with the nationwide data, the lower risk of malignancy could be possibly due to the different patient populations in hospital-based and public health screening programs.
• Further education for screeners is necessary for avoiding loose criteria of Category 5.