An Analysis of Cytology / hr-HPV Co-testing in Decreasing Diagnostic Missing of Cervical Cancer: 43722 cases

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Disclosures

• Nothing to disclose.
Background and objectives

- The persistent hr-HPV infection is necessary cause of cervical cancer
- Cytology is commonly used for screening
- HR-HPV test is recommended as the primary screening for women 25-65 years of age, with 3-year interval
- A small amount of cervical cancer with HPV negative results
- To investigate the proportion of cervical cancers with no evidence of hr-HPV infection and the role of liquid-based cytology (LBC) / hr-HPV co-test in decreasing the diagnostic missing of cervical cancers
Methods

- 43,722 cases who were co-tested with LBC and hr-HPV in our hospital
- Among them, 49 patients (1.12%) were pathologically diagnosed as cervical cancer
- LBC was conducted, according to TBS
- \( \geq \)ASCUS was reported as cytology abnormal
- HC2 assay was used for hr-HPV detection
Results

- The mean age: \((41.89 \pm 11.70)\) years (16~91)
- Cytology: 8.84% (3865/43722) of abnormal, Including 6.07% of ASCUS, and 2.76% of LSIL+
- HR-HPV: 23.98% of positives
- Cytology abnormal in hr-HPV negatives: 2.63%

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<thead>
<tr>
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<th>LBC+ (%)</th>
<th>LBC -(%)</th>
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<tbody>
<tr>
<td>HR-HPV+</td>
<td>2992 (6.84)</td>
<td>7496 (17.15)</td>
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<tr>
<td>HR-HPV-</td>
<td>873 (2.63)</td>
<td>32361 (74.02)</td>
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HR-HPV positive rates in different cytology

- suspicious/ CA: 81.63%
- AGC: 36.73%
- HSIL: 96.01%
- LSIL: 93.07%
- ASCUS: 71.21%
- NILM: 18.81%
hr-HPV negatives in cervical cancers

In 49 cervical cancers,

- 81.63% (40/49) was positive of hr-HPV
- 18.37% (9/49) was negative of hr-HPV

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<th>HPV positive (%)</th>
<th>HPV negative(%)</th>
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<tr>
<td>SCC</td>
<td>41</td>
<td>37 (90.24)</td>
<td>4 (9.76)</td>
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<tr>
<td>Aden-CA</td>
<td>8</td>
<td>3 (37.50)</td>
<td>5 (62.50)</td>
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<tr>
<td>Total</td>
<td>49</td>
<td>40 (81.63)</td>
<td>9 (18.37)</td>
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Conclusions

- Cervical cancer may be missed by sole hr-HPV primary screening
- hr-HPV / LBC co-testing decreased the rate of missing detection of hr-HPV tests
- Adenocarcinomas are more likely missed by HPV tests, thus we need more research for how to identify the risk of patients after hr-HPV testing
Thanks!

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