Case #2
Dina R. Mody, MD

45 year old woman
FNA biopsy of a right lower lobe lung mass
Case 2 What is your diagnosis?

Answer: Atypical Glandular Cells

Tissue Diagnosis: Endometrial Polyp, probably directly sampled.
Mimics of Endometrial Adenocarcinoma

- Hyperplasia
- Arias Stella Reaction & Pregnancy
- Endometrial & Endocervical polyps
- Cervical Small cell carcinoma
- IUD changes
- Fixation & staining artifacts
- Radiation changes
- Post menopausal atrophy and bare nuclei

ATYPICAL ENDOMETRIALS & AGE

<table>
<thead>
<tr>
<th>Tissue Diagnosis</th>
<th>&lt;59 yrs</th>
<th>&gt;59 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benign Endometrium</td>
<td>59.1%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Endometrial Polyp</td>
<td>9.1%</td>
<td>13%</td>
</tr>
<tr>
<td>Endometrial Hyperplasia</td>
<td>12.5%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Adenocarcinoma</td>
<td>9.1%</td>
<td>41.3%</td>
</tr>
<tr>
<td>Insufficient Tissue</td>
<td>10.2%</td>
<td>21.7%</td>
</tr>
</tbody>
</table>

Cherkis RC et al
NORMAL ENDOMETRIALS & AGE

<table>
<thead>
<tr>
<th>Tissue Diagnosis</th>
<th>&lt;59 yrs</th>
<th>&gt;59 yrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benign Endometrium</td>
<td>49.6%</td>
<td>22.4%</td>
</tr>
<tr>
<td>Endometrial Polyp</td>
<td>10.7%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Endometrial Hyperplasia</td>
<td>11.6%</td>
<td>15.5%</td>
</tr>
<tr>
<td>Adenocarcinoma</td>
<td>6.6%</td>
<td>20.7%</td>
</tr>
<tr>
<td>Insufficient</td>
<td>21.5%</td>
<td>27.4%</td>
</tr>
</tbody>
</table>

From Cherkis RC et al.

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Age Stratified Predictive Value (EMC)

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Hyperplasia</th>
<th>Ca</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 40 a,b,c,d</td>
<td>936</td>
<td>12 %</td>
<td>4.8%</td>
<td>17 %</td>
</tr>
<tr>
<td>&gt; 50 c,d</td>
<td>341</td>
<td>14 %</td>
<td>5.3%</td>
<td>19 %</td>
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<tr>
<td>&gt; 60 b,c,d</td>
<td>172</td>
<td>16%</td>
<td>13%</td>
<td>29%</td>
</tr>
</tbody>
</table>

a Cherkis RC. Obstet Gynecol 1998;71:242
c Ng A.B.P. Acta Cytol 1974; 18: 356
d Yancey M. Obstet Gynecol 1990;76: 1000

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AGUS (Endometrial)

- Small groups of 5-10 cells
- Nu slight enlarged, small nucleoli
- Slight hyperchromasia
- Ill-defined cell borders,
- Scant cytoplasm, vacuoles+/_
AGC Reporting Rates, CAP 2002

<table>
<thead>
<tr>
<th>Type</th>
<th>Percentile</th>
<th>Reporting Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>5&lt;sup&gt;th&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conv</td>
<td>.45</td>
<td>0.0</td>
</tr>
<tr>
<td>TP</td>
<td>.38</td>
<td>0.0</td>
</tr>
<tr>
<td>SP</td>
<td>.29</td>
<td>0.0</td>
</tr>
<tr>
<td>All</td>
<td>.39</td>
<td>0.0</td>
</tr>
</tbody>
</table>


AGUS Reporting Rates and Follow-up (%)

<table>
<thead>
<tr>
<th>Study</th>
<th>Rate</th>
<th>SIL</th>
<th>AIS</th>
<th>EMH</th>
<th>CA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goff92</td>
<td>.46</td>
<td>40</td>
<td>8</td>
<td>3.2</td>
<td>3.2</td>
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<tr>
<td>Zweiz97</td>
<td>.27</td>
<td>21</td>
<td>1.2</td>
<td>11.8</td>
<td>9.4</td>
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<tr>
<td>Eddy97</td>
<td>.6</td>
<td>27</td>
<td>1.9</td>
<td>1.1</td>
<td>6</td>
</tr>
<tr>
<td>Veljo98</td>
<td>.5</td>
<td>22.6</td>
<td>2.5</td>
<td>2.5</td>
<td>4</td>
</tr>
<tr>
<td>CAP96</td>
<td>.35</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Histologic Follow up of AGC in Postmenopausal Women

- Cx Polyp
- Endm Polyp
- EMH
- EMCA
- Other Ca
- ADM
- SIL

Percent of Cases

Bars indicate percentage of cases for each category.
Selected References

Small Cell Carcinoma of Cervix


Glandular references

General References


AGUS/AGC
Mody DR. Agonizing over AGUS, Cancer. 1999;87(5):243-244.


**Glandulars and HPV typing**


**ThinPrep and Glandulars**


**SurePath**


**Other References**


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Lee CY, Ng WK.
Acta Cytol. 2008 Mar-Apr;52(2):159-68.

Superior performance of liquid-based versus conventional cytology in a population-based cervical cancer screening program.
Beerman H, van Dorst EB, Kuenen-Boumeester V, Hogendoorn PC.
Gynecol Oncol. 2009 Jan 15. [Epub ahead of print]


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ThinPrep detection of cervical and endometrial adenocarcinoma: a retrospective cohort study.
Schorge JO, Hossein Saboorian M, Hynan L, Ashfaq R.

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Endometrial Polyps References

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How often are endometrial polyps malignant?
Shushan A, Revel A, Rojansky N.

[Hysteroscopic evaluation of the uterine cavity in postmenopausal women with uterine bleeding]
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Diagnostic value of hysteroscopy and hysterosonography in endometrial abnormalities in asymptomatic postmenopausal women.
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Histopathologic features and risk factors for benignity, hyperplasia, and cancer in endometrial polyps.
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Postmenopausal bleeding: a diagnostic approach for both private and public sectors.
Spicer JM, Siebert I, Kruger TF.

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**Role of hysteroscopy with endometrial biopsy to rule out endometrial cancer in postmenopausal women with abnormal uterine bleeding.**

**Transvaginal ultrasonography and endometrial cytology as a diagnostic schema for endometrial cancer.**

**The malignant potential of endometrial polyps.**

**The significance of intrauterine lesions detected by ultrasound in asymptomatic postmenopausal patients.**

**The role of outpatient diagnostic hysteroscopy in identifying anatomic pathology and histopathology in the endometrial cavity.**

**Transvaginal ultrasound and diagnostic hysteroscopy as a predictor of endometrial polyps: risk factors for premalignancy and malignancy.**

**Uterine pathologies in patients undergoing tamoxifen therapy for breast cancer: ultrasonographic, hysteroscopic and histological findings.**

**Hysteroscopic evaluation of endometrial polyps.**