Gastric Adenocarcinoma in Adolescent Presenting with Massive Ascites: Two Cases Report

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Background
• Gastric adenocarcinoma in children
  – rare in children
  – nonspecific abdominal symptoms
  – poor prognosis
  – few information
  – diagnosis and treatment remains challenge

Case 1
• 16 y/o boy
• abdominal fullness and poor appetite for 1 week
• BW loss of 8 kg in 2 weeks
• general diet habit
• smoking 0.33 ppd for about 1 year
• grandfather -> gastric cancer, died at 51 y/o

Physical examination
• Abdominal distension, dull on percussion, epigastric tenderness.
• No palpable abdominal mass
• Enlarged neck lymph nodes, level V

Ascites
• RBC count: 4000/ul,
• WBC count: 10707/ul with neutrophil 89%
• Albumin: 2.9g/dL
• Total protein: 4.2g/dL Glucose: 97mg/dL,
• LDH: 288U/L,
• cytology -> malignant cells showed normal.

<table>
<thead>
<tr>
<th>WBC</th>
<th>Result</th>
<th>Normal range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11190/ul</td>
<td>3990-10390/ul</td>
</tr>
<tr>
<td>Neutrophil</td>
<td>80.4%</td>
<td>40-74%</td>
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<tr>
<td>LDH</td>
<td>90U/L</td>
<td>98-192U/L</td>
</tr>
<tr>
<td>CA125</td>
<td>109.1U/mL</td>
<td>&lt;35U/mL</td>
</tr>
<tr>
<td>CEA</td>
<td>0.51ng/ml</td>
<td>&lt;5 ng/ml</td>
</tr>
<tr>
<td>CA199</td>
<td>6.8U/ml</td>
<td>&lt;35U/ml</td>
</tr>
</tbody>
</table>
A large bizarre gastric ulcer (A2) (4x4 cm), snake skin and multiple nodular appearance at angular incisure

(R) poorly differentiated adenocarcinoma with the presence of signet ring cells (Hematoxylin and eosin 400 X), (L) x H. pylori were identified. (Warthin-Starry stains 400 X)

T4NxM1, stage IV
Chemotherapy
- dexamethasone phosphate, oxaliplatin, capecitabine.
died 10 months after diagnosis.

Case 2
- 17 y/o girl
- abdominal fullness and poor appetite for 1 month
- nausea and severe hiccup for 2 weeks
- general diet habit
- no smoking
- grandfather -> colon cancer

Physical examination
- abdominal distension, dull on percussion
- no tenderness, palpable abdominal mass
<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
<th>Normal range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hb</td>
<td>8.7gm/dL</td>
<td>12.0-16.0/ul</td>
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<tr>
<td>MCV</td>
<td>71.3fl</td>
<td>80-99fl</td>
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<tr>
<td>CRP</td>
<td>6.43mg/dL</td>
<td>&lt;0.8mg/dL</td>
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<tr>
<td>CA125</td>
<td>312.9U/mL</td>
<td>&lt;35U/mL</td>
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<tr>
<td>CEA</td>
<td>2.40ng/ml</td>
<td>&lt;5 ng/ml</td>
</tr>
<tr>
<td>CA199</td>
<td>26.1U/ml</td>
<td>&lt;35U/ml</td>
</tr>
<tr>
<td>β-HCG</td>
<td>8.83mIU/mL</td>
<td>8.83mIU/mL</td>
</tr>
</tbody>
</table>

- Ascites
  - RBC count: 5000/ul,
  - WBC count: 460/ul with lymphocyte predominant (neutrophil 2%, lymphocyte 77%, monocyte 21%)
  - albumin: 2.8g/dL
  - total protein: 4.5g/dL,
  - Glucose: 84mg/dL,
  - LDH: 323U/L,
  - The cytology -> malignant cells, suspected metastatic adenocarcinoma.

(R) poor cellular cohesiveness and signet-ring morphology (arrows) with focal mitotic activity (arrow head). (Hematoxylin and eosin 400 X).

(L) × H. pylori were identified. (Warthin-Starry stains 400 X)

- stage IV
- underwent chemotherapy

a large tumor, 4x5 cm, near the cardiac junction, and an A1 ulcer at the margin of the tumor
Discussion

Thank you