Introduction

- Pancreatobiliary malignancies often present with late disease, with only 30% being resectable tumours, contributing to poor prognosis and outcome1.
- ERCP is a mainstay for diagnosing and treating conditions of the bile and pancreatic duct.
- Indeterminate biliary strictures (IBDS) are lesions whose nature remain ambiguous even after imaging, ERCP, and laboratory analysis, and run the risk of misdiagnosing cholangiocarcinomas or pancreatic adenocarcinomas2.
- Current ERCP techniques have statistically offered sensitivities and specificities below desired values.

Methods

- Retrospective study of 3723 ERCP procedures.
- 222 patients (285 ERCP procedures) met study inclusion/exclusion criteria.
- Patients were ≥19 years old who had undergone fluoroscopy-guided pancreatic and/or biliary ERCP sampling at KGH for which cytology brushing and/or tissue biopsies were obtained.
- Demographic, clinical, and disease information was collected.
- Three main ERCP techniques were analyzed: brushing alone, biopsy alone, or brushing and biopsy dual modality approach.
- Test performances of ERCP sampling methods were determined by reviewing clinical reports.

Results (continued)

Table 3. Test performance of ERCP sampling modalities in the literature.

<table>
<thead>
<tr>
<th>Modality</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushing Alone2-7</td>
<td>6 – 64%</td>
<td>100%</td>
<td>38 – 80%</td>
</tr>
<tr>
<td>Biopsy Alone8-11</td>
<td>43 – 81%</td>
<td>90 – 100%</td>
<td>65 – 81%</td>
</tr>
<tr>
<td>Biopsy and Brushing12</td>
<td>54 – 65%</td>
<td>99 – 100%</td>
<td>70 – 73%</td>
</tr>
<tr>
<td>SOC for Visual Inspection12,13</td>
<td>78 – 100%</td>
<td>77 – 96%</td>
<td>80 – 97%</td>
</tr>
<tr>
<td>SOC Biopsy12,13</td>
<td>38 – 88%</td>
<td>82 – 100%</td>
<td>61 – 96%</td>
</tr>
<tr>
<td>EUS FNA14,15</td>
<td>75%</td>
<td>100%</td>
<td>79%</td>
</tr>
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Discussion & Conclusion

- Combining modalities of tissue acquisition appears to improve both sensitivity and specificity, which is supported in existing literature.
- Brush cytology remains first-line method of obtaining tissue at ERCP despite its low sensitivity.
- There is a definite need for more effective screening and diagnostic measures in pancreatobiliary malignancies.

References