The problem: Clinical Fixation

TERRY PHANG
Take-Home
No definitive test to determine invasion of adjacent organ / structure
## Accuracy of clinical staging

<table>
<thead>
<tr>
<th></th>
<th>DRE</th>
<th>CT</th>
<th>MR</th>
<th>ERUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accuracy</strong> 1</td>
<td>65%</td>
<td>--</td>
<td>94%</td>
<td>69%</td>
</tr>
<tr>
<td><strong>Accuracy</strong> 2</td>
<td>--</td>
<td>73%</td>
<td>82%</td>
<td>87%</td>
</tr>
<tr>
<td><strong>T-stage</strong> 2</td>
<td>--</td>
<td>78%</td>
<td>86%</td>
<td>93%</td>
</tr>
<tr>
<td><strong>N-stage</strong> 2</td>
<td>--</td>
<td>52%</td>
<td>65%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Post-radiation accuracy

- Limited accuracy on CT, MR, ERUS, DRE
  - Post-radiation edema / fibrosis results in false positive margin prediction

MERCURY study, BMJ 2006
Personal observations

- MR provides best resolution of upper and mid rectal mesorectal planes
- ERUS provides best resolution of distal rectal relations anteriorly (prostate, vagina) and to the anal sphincter
Anterior clinical fixation - ERUS

- TME if ERUS anterior fat plane intact
- En bloc resection if ERUS absent anterior fat plane
  - Posterior vaginal wall
  - Cystoprostatectomy
Posterior clinical fixation - MR

- TME if MR posterior fat plane intact
- En bloc resection if MR absent posterior fat plane
  - En bloc resection coccyx, S4-5
Levator fixation - ERUS

- TME if ERUS levator intact
  - ISR, APR
- En bloc resection if ERUS levator invasion
  - Extended APR / ASR
What is the consequence of “shaving” the tumour away from an adjacent organ?

Outcomes of R1 resection
Effect of R1 resection – Preop Chemoradiation, TME

Gosens, Clin Cancer Res 2007
Take - Home

- No definitive test to determine invasion of surrounding organ / structure

- En bloc resection unless MR / ERUS mesorectal planes intact