THE EFFICACY OF TREATMENT OF LOCAL RESIDUAL NEOPLASIA UNDER STANDARDIZED CONDITIONS

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Any author has no conflict of interest
Laterally spreading (type) tumors (LSTs)

- LSTs are superficial flat elevated (0-IIa) neoplastic lesions with diameter ≥10mm

- In the absence of sm neoplastic invasion, there is no risk of lymph node metastasis

- Endoscopic resection has replaced surgery as first line treatment modality
Local residual neoplasia (LRN)

• LRN is defined as presence of neoplastic tissue in the biopsy from post-endoscopic resection site

• Reported occurrence of LRN after EMR is 15 (5-55)%

• *Piecemeal* resection is the main risk factor

• LRN may develop into the invasive cancer
Treatment of local residual neoplasia

• Endoscopy (APC, re-EMR, ESD)
  Metaanalysis (351 LRNs, APC, re-EMR)
  79 % could be eradicated in one session

• Surgery
  1 % of lesions initially considered adequate for EMR

No prospective studies of LRN treatment under standardized conditions have been published yet

Aims of the study

to evaluate the efficacy of LRN treatment under standardized conditions in patients after EMR of LSTs
Study setting

• Design: Prospective interventional
• Inclusion period: 10/2013- 9/2014
• Sites: Two centers in the Czech Republic
• Ethics: Ethics committee at Vitkovice Hospital
• Registration: ClinicalTrial.gov  NCT02386618

• Inclusion: All consecutive patients referred for LRN treatment
• Exclusion: Incomplete therapy of original lesion
  Previous LRN therapy attempt
## Methods

<table>
<thead>
<tr>
<th>t=0</th>
<th>Initial colonoscopy (treatment of LST)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Complete resection- follow up</td>
</tr>
<tr>
<td></td>
<td>Incomplete resection - exclusion</td>
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<tr>
<td>t=3m</td>
<td><strong>1st follow-up colonoscopy</strong></td>
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<td>Pozitive for LRN- INCLUSION TO THE STUDY</td>
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<td></td>
<td>LRN classification</td>
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<td>LRN treatment</td>
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<tr>
<td>t=9m</td>
<td><strong>2nd follow-up colonoscopy (LRN treatment assessment)</strong></td>
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</table>
## Proposed endoscopic classification of LRN and corresponding treatment

<table>
<thead>
<tr>
<th>Type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Endoscopic characteristics</strong></td>
<td><strong>Normal post-EMR site</strong></td>
<td>≤ 5mm</td>
<td>&gt; 5mm Non-lifting negative</td>
<td>&gt; 5mm Non-lifting positive</td>
<td>Complex</td>
</tr>
<tr>
<td><strong>Corresponding treatment</strong></td>
<td>APC</td>
<td>APC</td>
<td>Re-EMR</td>
<td>ESD</td>
<td>Surgery</td>
</tr>
</tbody>
</table>
Type B LRN treatment by APC
Type C LRN treatment by re-EMR and APC
Type D LRN treatment by ESD
### Demographic and clinical characteristics (n=25)

- **Age (mean±SD)**: 69.3 ± 13.8
- **Gender (M/F)**: 10/15

- **Size of original LST**
  - 10-19 mm: 1 (4 %)
  - 20-29 mm: 6 (24 %)
  - ≥ 30 mm: 18 (72 %)

- **Histology of original LST**
  - LGIEN: 6 (24 %)
  - HGIEN: 14 (56 %)
  - Intramucosal cancer: 5 (20 %)
LRN location and histology (n= 25)

LGIEN 12 (48 %)
HGIEN 13 (52 %)

0

3 (12 %) 6 (24 %)

16 (64 %)
## Results of LRN treatment after 6 months

<table>
<thead>
<tr>
<th>LRN type</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>Σ</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n</strong></td>
<td>0 (0 %)</td>
<td>12 (48 %)</td>
<td>8 (32 %)</td>
<td>5 (20 %)</td>
<td>0 (0 %)</td>
<td>25 (100 %)</td>
</tr>
<tr>
<td>Lost from FU</td>
<td></td>
<td>1*</td>
<td>1**</td>
<td></td>
<td></td>
<td>2 (8 %)</td>
</tr>
<tr>
<td>LRN negative</td>
<td>10 (90.9 %)</td>
<td>7 (87.5 %)</td>
<td>4 (100 %)</td>
<td></td>
<td></td>
<td>21 (91.3 %)</td>
</tr>
<tr>
<td>LRN pozitive</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>2 (8.7 %)</td>
</tr>
</tbody>
</table>

* Mental problems  ** Warfarin treatment
Complications and LRN treatment failures

• No mortality
• No perforation, severe and/or delayed bleeding
• Treatment failure in 2 (8.7%) cases of LRN
  (1) APC of type B
  (2) Re-EMR of type C
Treatment failure
Discussion

In our previous study

• The occurrence of LRN after 15 months was 20.3 %

• LRN treatment was complete in 8/17 (47.1 %)

• Lack of standardization and using mostly APC for LRN treatment suggested as possible causes

Limitations

• Limited number of patients

• Only 6 months of follow-up after LRN treatment

• Bicentric study design
Conclusions

In our study, eradication of LRN after EMR of LST was achieved in 91.3% during one treatment session.

Selection of treatment modality according to the LRN type may be useful.

Further studies with larger number of cases and longer follow up are needed.
Acknowledgement

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