Intersphincteric resection for patients with very low rectal cancer

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Intersphincteric resection of low rectal tumors is a surgical technique extending rectal resection into the intersphincteric space. This procedure is performed by a synchronous abdominoperineal approach with mesorectal excision of the entire or part of the internal sphincter. It is also referred to as sphincter-saving rectal surgery.
INTERSPHINCTERIC RESECTION
Intersphinteric resection is regarded as the most EXTREME form for resection of “ultralow” rectal cancers

R. Schiessel
Intersphinteric space
Intersphincteric space

<table>
<thead>
<tr>
<th>Type of ISR</th>
<th>Anastomotic line</th>
<th>Sacrificed sphincter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial</td>
<td>Just or DL or within 1 cm oral side from DL.</td>
<td>Partial IS</td>
</tr>
<tr>
<td>Subtotal</td>
<td>Between DL and ISG</td>
<td>Almost all of IS</td>
</tr>
<tr>
<td>Total</td>
<td>Just on ISG</td>
<td>Total IS without or with partial ES</td>
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Aims

- Radical excision (R0)
- Sphincter saving
- Continence function saving
Inclusion criteria

- Tumor location in the lower rectum and anal canal
- Local spread restricted to the rectal wall or internal sphincter as determined by preoperative imaging (MRI) and endosonography
- Tumor diameter > 1 cm
- Histologic grading as determined by preoperative biopsy (GI-II)
Inclusion criteria

- Sphincter function assessed by rectodigital palpation and sphincter manometry
- Absence of distant metastasis
- The tumor distance from the anal margin has to be measured with a rigid sigmoidoscope on the patient placed in a lateral position
MRI

- Specificity 94%
- Sensitivity 100%
Surgical technique

- Rectal resection with TME ("open" or laparoscopic)
- Anal part of the operation with coloanal anastomosis
- Protective stoma
Technique and Long-Term Results of Intersphincteric Resection for Low Rectal Cancer

Rudolf Schiessel, M.D., Gabriele Novi, M.D., Brigitte Holzer, M.D., Harald R. Rosen, M.D., Karl Renner, M.D., Nikolaus Hölbling, M.D., Wolfgang Feil, M.D., Michael Urban, M.D.

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INTERSPHINCTERIC RESECTION (n=121)

- Median distance from the anal margin: 3 cm (range 1-5)
- Mean age: 65 years
- 117 R0
INTERSPHINCTERIC RESECTION  
(n=121)

Complications

- 30-day-complication rate: 7%
- 5 anastomotic leaks
- Mortality: 0.8%
- Anastomotic strictures: 9%
INTERSPHINCTERIC RESECTION RESEZIONE (n=121)

Figure 7. Kaplan-Meier plot of recurrence. Censored data are marked with a tick.
INTERSPHINCTERIC RESECTION
(n=121)
INTERSPHINCTERIC RESECTION

- Intersphincteric resection is a valuable procedure for sphincter-saving rectal surgery
- This technique has satisfactory long-term results in functional and oncologic respects
Laparoscopic intersphincteric resection for low rectal cancer

- A literature search identified five studies


These studies concluded that a laparoscopic approach can be considered in most patients with low rectal cancer in which laparoscopic ISR represents a feasible alternative to conventional open surgery.

Hopefully, randomized controlled trials, which utilize these alternative procedures, will in future determine the results of laparoscopic ISR in terms of sphincter function, faecal continence, disease free and overall survival.
