Contributing factors for fecal incontinence among gynecological cancer survivors

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Presentation of study

- Aim
- Method
- Study population
- Prevalence of loose stools and fecal incontinence and the relation between the two symptoms
- Strategies used by cancer survivors to avoid loose stools
AIM

report on the occurrence of loose stools and its relation to fecal incontinence
Epidemiological cohort study

Qualitative phase - preparation
- Clinical knowledge
- Interviews 26 cancer survivors
- Study-specific questionnaire
- Validation
- Pilot study

Quantitative phase – main study
- Collection of data
- Publications
Study-specific questionnaire

Including 351 questions

- Demographics
- Psychological aspects
- QoL
- Physical symptoms:
  - anal sphincter and bowels → 114 questions
  - urinary- and genital tracts
  - pelvic bones
  - lower abdomen, legs
- Sexual function
Study population
CANCER SURVIVORS

1800 gynecological cancer patients treated with radiotherapy to pelvic region 1991-2003 at Karolinska and Sahlgrenska Hospitals

1001 did not meet the eligible criteria
- born 1927 or later
- understand Swedish
- no recurrence

789 eligible patients were sent an introduction letter

92 non-participants

697 gave informed oral consent

81 did not complete the study

616 (78%) participated in the study
Study population
CONTROL WOMEN

486 women
Swedish Population Registry

8 did not meet eligible criteria
- born 1927 or later
- understand Swedish
- No radiotherapy to pelvic region

478 eligible controls were sent an introduction letter

58 non-participants

420 gave informed oral consent

76 did not complete the study

344 (72%) participated in the study
Results

- Participation rate:
  78% cancer survivors and 72% for control women

- Mean age at follow-up:
  64 years for cancer survivors and 58 years for controls

- Time since radiotherapy:
  mean 86.1 months (7 years) (SD 43.0)
  median 77 months (6 years)
Diagnosis

- endometrial 59%
- cervical 23%
- ovarian 9%
- uterine sarcoma 5%
- vaginal 2%
- vulvar 1%
Treatment cancer-survivors

- Surgery and radiotherapy 90%
- Radiotherapy alone – no surgery 10%
- Brachytherapy 81%
- Chemotherapy 32% - 5% concomitant radiotherapy
Loose stools – prevalence in percent

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Survivors</th>
<th>Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>No loose stools</td>
<td>19</td>
<td>31</td>
</tr>
<tr>
<td>Occasionally</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Monthly</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Weekly</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>3 times/week</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Daily</td>
<td>13</td>
<td>1</td>
</tr>
</tbody>
</table>
Fecal incontinence – prevalence in percent

Survivors
Controls

no fecal incontinence: 88 (Survivors), 51 (Controls)
occaasionally: 35 (Survivors), 10 (Controls)
monthly: 6 (Survivors), 1 (Controls)
at least weekly: 13 (Survivors), 1 (Controls)
Relation loose stools and fecal incontinence

- Cancer survivors with FI
- Controls with FI

No loose stools: 20% (Cancer) vs. 5% (Controls)
Loose stools occasionally: 34% (Cancer) vs. 10% (Controls)
Loose stools monthly: 58% (Cancer) vs. 24% (Controls)
Loose stools weekly: 68% (Cancer) vs. 25% (Controls)
Loose stools at least 3 times/week: 76% (Cancer) vs. 27% (Controls)
Loose stools at least every day: 83% (Cancer) vs. 40% (Controls)
Almost 9 out of 10 gynecological cancer survivors with loose stools at least every day, reported fecal incontinence.
## Characteristics

**Cancer Survivors with loose stools:**

<table>
<thead>
<tr>
<th>At least once a week</th>
<th>Monthly or less often</th>
</tr>
</thead>
<tbody>
<tr>
<td>31% current smoker</td>
<td>(19%)</td>
</tr>
<tr>
<td>7% inflammatory bowel diseases</td>
<td>(3%)</td>
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<tr>
<td>8% lactose intolerance</td>
<td>(4%)</td>
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</table>

**Radiotherapy – time since treatment:**

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<table>
<thead>
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<tbody>
<tr>
<td>40% less than 5 years ago</td>
<td>(30%)</td>
</tr>
<tr>
<td>40% 5-10 years</td>
<td>(46%)</td>
</tr>
<tr>
<td>20% more than 10 years ago</td>
<td>(24%)</td>
</tr>
</tbody>
</table>
## Strategies to avoid loose stools

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Gynecological Cancer Survivors with Loose Stools at least once a week N= 226 (%)</th>
<th>Gynecological Cancer Survivors with Loose stools once a months or less often N=366 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active choice of what to eat to avoid loose stools, at least once a week</td>
<td>105/224 (47)</td>
<td>26/364 (7)</td>
</tr>
<tr>
<td>Skipped meals in order to avoid loose stools, at least once a week</td>
<td>30/224 (13)</td>
<td>2/363 (1)</td>
</tr>
<tr>
<td>Use of prescription medication for the treatment of loose stools</td>
<td>75/211 (36)</td>
<td>29/343 (8)</td>
</tr>
<tr>
<td>Use of over-the-counter medication for the treatment of loose stools</td>
<td>54/214 (25)</td>
<td>34/343 (10)</td>
</tr>
<tr>
<td>Use of healthy food and complementary medication</td>
<td>17/211 (8)</td>
<td>16/343 (5)</td>
</tr>
</tbody>
</table>
Conclusions

- Loose stool is a common symptoms after pelvic radiotherapy
- There is a relation between loose stools and fecal incontinence among gynecological cancer survivors treated with pelvic radiotherapy
Is it possible to decrease fecal incontinence by treating loose stools?
Enheten för CancerRehabilitering:
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Gail Dunberger, RN, PhD
Sahlgrenska University Hospital
Västra Götalandsregionen
”I must always think about staying near a toilet or holding myself in order to avoid defecating in my clothes. My thoughts revolve around trips to the restroom. As a 39 year old, I experience these emotions with humiliation.”

Eva
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