Nutritional support to cancer patients – The nurses’ perspective

Maria Larsson
Nutritional support to cancer patients – the nurses’ perspective

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A supportive nursing care clinic for patients with head and neck cancer

– effects on nutritional status, nutritional treatment and admissions to hospital

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Head and neck cancer

- Ca 1,100 new cases each year in Sweden
- Overall 5-year survival 50-60%
- Affect
  - Speech
  - Breathing
  - Eating and drinking

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Malnutrition in patients with head and neck cancer

- Malnutrition is seen in 80-85% of patients with head and neck cancer during some part of the cancer trajectory
- Multifactorial aetiology:
  - Tumour can depending on tumour site, size, type and stage cause
    - local effects such as obstruction
  - Side-effects of treatment
  - Psychological and emotional stress
  - Existential crisis caused by the cancer diagnosis

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Side-effects of cancer treatment

- Sore mouth and throat
- Mouth dryness
- Taste loss
- Swallowing problems
- Chewing difficulties
- Pain
- Anorexia
- Fatigue
- Nausea
- Vomiting
- Altered bowel habits – diarrhoea, constipation

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Regular care (RC)

- Traditional diagnosis process, contacts mostly with physicians
- 6-8 weeks from diagnosis to RT
- During RT, appointments with physician weekly/second week
- Treatment session 15-20 minutes including nursing care
- After RT, appointments with physicians after six weeks and later every third month
- No regular contact with nurses after RT
The Supportive Nursing Care Clinic

- Complementary to regular care
- Contact established before RT in order to prepare the patient and his/her next of kin
- Continuously contact during RT
- Intense contact after RT:
  - First week contacts for 1-3 occasions
  - Weekly contact for a month
  - Thereafter every second to third week
  - Individual schedule!
The Supportive Nursing Care Clinic

- Focus of care:
  - Symptom control
  - Nutritional care
  - Emotional and social support
- Organised according to Primary Nursing
  - Individual and holistic care
- One Primary nurse
- Cornerstones:
  - Continuity and availability

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Objective

To investigate the impact of the SNCC on nutritional status, extent of nutritional treatment, and occurrence of admissions to hospital due to nutritional problems for patients with head and neck cancer treated with radiotherapy.
Method

- Comparative design
  - SNCC – 20 patients prospectively followed
  - RC – Retrospective review of 50 patient records
- Study specific questionnaire covering eating problems, weight, nutritional interventions, and reasons for admission to hospital.
Sample

- Supportive Nursing Care Clinic – 20 patients
- Regular Care – 50 patients

Inclusion criteria:
- External radiotherapy with or without surgery or brachytherapy

Exclusion criteria:
- Larynx stage I
- Concomitant chemotherapy
Data collection

- Before radiotherapy (baseline)
- Last day of RT treatment (end of RT)
- After one month
- After six months
- After one year
Data analysis

- Descriptive statistics, frequencies
- Tests of significance:
  - Two-Sample Kolmogorov - Smirnov Z-test
## Patient characteristics

<table>
<thead>
<tr>
<th>SNCC</th>
<th>RC</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=20</td>
<td>n=50</td>
</tr>
<tr>
<td>Mean age 61.0 years</td>
<td>Mean age 64.7 years</td>
</tr>
<tr>
<td>13 males (65%)</td>
<td>34 males (68%)</td>
</tr>
<tr>
<td>7 females (35%)</td>
<td>16 females (32%)</td>
</tr>
<tr>
<td>Mean target dose (RT)</td>
<td>Mean target dose (RT)</td>
</tr>
<tr>
<td>57.5 Gy</td>
<td>59.4 Gy</td>
</tr>
</tbody>
</table>
# Tumor location and stage

<table>
<thead>
<tr>
<th>Tumour location</th>
<th>SNCC</th>
<th>(%)</th>
<th>RC</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naso-, oro-, and hypofarynx</td>
<td>6</td>
<td>(30)</td>
<td>23</td>
<td>(46)</td>
</tr>
<tr>
<td>Oral cavity</td>
<td>11</td>
<td>(55)</td>
<td>18</td>
<td>(36)</td>
</tr>
<tr>
<td>Nasal cavity and paranasal sinus</td>
<td>2</td>
<td>(5)</td>
<td>3</td>
<td>(6)</td>
</tr>
<tr>
<td>Larynx</td>
<td>1</td>
<td>(10)</td>
<td>6</td>
<td>(12)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>(100)</td>
<td>50</td>
<td>(100)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tumour stage</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Early tumor stage</td>
<td>5</td>
<td>25%</td>
<td>19</td>
<td>38%</td>
</tr>
<tr>
<td>Advanced tumor stage</td>
<td>15</td>
<td>75%</td>
<td>31</td>
<td>62%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>20</td>
<td>(100)</td>
<td>50</td>
<td>(100)</td>
</tr>
</tbody>
</table>

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Eating problems, end of RT

- Pain in the mouth
- Swallowing difficulties
- Chewing difficulties
- Open mouth
- Transportation of food
- Thick and ropy saliva
- Mouth dryness

RC, end of RT
SNCC, end of RT

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Eating problems after six months

- Pain in the mouth
- Swallowing difficulties
- Chewing difficulties
- Open mouth
- Transportation of food
- Thick and ropy saliva
- Mouth dryness

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Eating problems after 12 months

- Pain in the mouth
- Swallowing difficulties
- Chewing difficulties
- Open mouth
- Transportation of food
- Thick and ropy saliva
- Mouth dryness

RC, 12 months
SNCC, 12 months

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Percentage of weight loss

- % weight loss Historical control (n=20)
- % weight loss SNCC (n=20)

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# Nutritional interventions and admissions to hospital

<table>
<thead>
<tr>
<th>Group</th>
<th>Dietary Supplements</th>
<th>Enteral Nutrition</th>
<th>Admissions to Hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNCC  (n=20)</td>
<td>100% (n=20)</td>
<td>65% (n=13)</td>
<td>25% (n=5)</td>
</tr>
<tr>
<td>RC     (n=50)</td>
<td>34% (n=17)</td>
<td>26% (n=13)</td>
<td>48% (n=24)</td>
</tr>
</tbody>
</table>
Conclusions

- The patients in this study had severe eating problems regardless of model of care, but pain were less common in the SNCC group indicating more adequate treatment.

- The patients in the supportive care group received more often dietary supplements and enteral nutrition and lost considerable less weight than the patients in the regular care group.
Conclusions cont.

- Admissions to hospital due to nutritional problems were reduced with 50% for patients treated at the SNCC.

- A supportive nursing care clinic can make appropriate early nutritional interventions possible and thereby optimize nutritional status and reduce morbidity.
Thank you for your attention!

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