Effekt av kostholdsveiledning hos pasienter med kreft

Notat fra Kunnskapssenteret
Systematisk litteratursøk med sortering
August 2011

kunnskapssenteret

Innledning: Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag fra Kreftforeningen å utføre systematisk søk etter litteratur om effekt av kostholdsveiledning for å forebygge og behandle underernæring hos pasienter med kreft. Mange pasienter med kreft går ned i vekt og får dårlig ernæringsstatus som følge av behandling, eller som resultat av selve kreftsykdommen (kakeksi). Underernæring forringer livskvaliteten og kan gi dårligere effekt av behandlingen. **Metode:** Vi søkte etter systematiske oversikter i The Cochrane Database of systematic reviews, Database of Abstracts of Reviews of Effects (DARE), Health Technology Assessment Database (HTA), Ovid EMBASE, Ovid Pre-MEDLINE og MEDLINE. **Resultater:** • Søket ga 331 treff etter sletting av dubletter. • 22 referanser ble vurdert å være relevante for problemstillingen.

(fortsetter på baksiden)

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Nasjonalt kunnskapssenter for helsetjenesten fremskaffer og formidler kunnskap om effekt av metoder, virkemidler og tiltak og om kvalitet innen alle deler av helsetjenesten. Målet er å bidra til gode beslutninger slik at brukerne får best mulig helsetjenester. Kunnskapssenteret er formelt et forvaltningsorgan under Helsedirektoratet, men har ingen myndighetsfunksjoner og kan ikke instrueres i faglige spørsmål.

Nasjonalt kunnskapssenter for helsetjenesten
Oslo, august 2011

Hovedfunn

Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag fra Kreftforeningen å utføre systematisk søk etter litteratur om effekt av kostholdsveiledning for å forebygge og behandle underernæring hos pasienter med kreft.

Mange pasienter med kreft går ned i vekt og får dårlig ernæringsstatus som følge av behandling, eller som resultat av selve kreftsykdommen (kakeksi). Underernæring forringer livskvaliteten og kan gi dårligere effekt av behandlingen.

- Vi søkte etter systematiske oversikter i The Cochrane Database of systematic reviews, Database of Abstracts of Reviews of Effects (DARE), Health Technology Assessment Database (HTA), Ovid EMBASE, Ovid Pre-MEDLINE og MEDLINE
- Søket ga 331 treff etter sletting av dubletter
- 22 referanser ble vurdert å være relevante for problemstillingen

Tittel:

Effekt av kostholdsveiledning hos pasienter med kreft

Publikasjonstype:

Systematisk litteratursøk med sortering

Et systematisk litteratursøk med sortering er resultatet av å
- søke etter relevant litteratur ifølge en søkestrategi og
- eventuelt sortere denne litteraturen i grupper presentert med referanser og vanligvis sammendrag

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Svarer ikke på alt:

- Ingen kritisk vurdering av studienes kvalitet
- Ingen analyse eller sammenfatning av studiene
- Ingen anbefalinger

Hvem står bak denne publikasjonen?

Kunnskapssenteret har gjennomført oppdraget etter forespørsel fra Kreftforeningen

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Når ble litteratursøket utført?

Søk etter studier ble avsluttet mai 2011.

Key messages (English)

Norwegian Cancer Society asked The Norwegian Knowledge Centre for the Health Services (NOKC) to do a systematic search on the efficiency of dietary counseling to prevent and treat malnutrition among patients with cancer.

Many patients with cancer lose weight and have poor nutritional status as a result of the treatment, or as a result of the cancer itself (cachexia). Malnutrition reduces quality of life and may cause loss of treatment efficacy.

- Systematic searches was performed in The Cochrane Database of systematic reviews, Database of Abstracts of Reviews of Effects (DARE), Health Technology Assessment Database (HTA), Ovid EMBASE, Ovid Pre-MEDLINE and MEDLINE
- A total of 331 references were identified
- 22 references were found to be relevant

Title:
Efficiency of dietary counseling for patients with cancer

Type of publication:

Systematic reference list

A systematic reference list is the result of a search for relevant literature according to a specific search strategy. The references resulting from the search are then grouped and presented with their abstracts.

Doesn't answer everything:

- No critical evaluation of study quality
- No analysis or synthesis of the studies
- No recommendations

Publisher:

Norwegian Knowledge Centre for the Health Services

Updated:

Last search for studies:
May 2011.

Innhold

Forord

Nasjonalt kunnskapssenter for helsetjenesten fikk i oppdrag
fra Kreftforeningen å søke etter litteratur om underernæring hos pasienter med kreft, i første omgang effekten av kostholdsveiledning. Dette notatet er tenkt som et grunnlag for videre arbeid hos oppdragsgiver.

Prosjektgruppen har bestått av:

- Prosjektkoordinator: forsker Ida-Kristin Ørjasæter Elvsaas, Kunnskapssenteret
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Avdelingsdirektør	*Seksjonsleder*	*Prosjektleder*

Innledning

Underernæring i kreftbehandling

Ernæringsproblemer er ikke uvanlig blant pasienter som får behandling for kreft. Mange pasienter med kreft går ned i vekt og får dårlig ernæringsstatus, enten på grunn av behandlingen eller som et resultat av selve kreftsykdommen (kakeksi). Tidlig ernæringsintervensjon er viktig hvis man skal ivareta god ernæringsstatus og livskvalitet hos pasienten. Underernæring reduserer kroppens evne til å bli frisk, kan redusere effekten av behandling og føre til lengre sykdomsforløp enn om personen opprettholder god ernæringsstatus. Det trengs kunnskap om hvilke tiltak som virker for å forebygge og behandle underernæring hos pasienter med kreft.

Problemstilling og begrunnelse for valg av søkestragi

Tiltaket det søkes kunnskap om er effekt av kostholdsveiledning ved kreftsykdom for overlevelse, livskvalitet, kroppsmasseindeks og vekt.

I samarbeid med oppdragsgiver ble det bestemt å søke etter systematiske oversikter. Systematiske oversikter er resultatet av å hente inn, gjennomgå, vurdere og sammenstille eksisterende forskning.

Metode

Litteratursøking

Vi søkte systematisk etter litteratur i følgende databaser:

- The Cochrane Database of systematic reviews
- Database of Abstracts of Reviews of Effects (DARE)
- Health Technology Assessment Database (HTA)
- Ovid EMBASE
- Ovid Pre-MEDLINE og MEDLINE

Forskningsbibliotekar Sari S Ormstad planla og utførte samtlige søk. Den fullstendige søkestrategien er gjengitt i vedlegg 1. Søk etter studier ble avsluttet mai 2011.

Inklusjonskriterier

Studiedesign (i prioritert rekkefølge):

1. Systematiske oversikter

Populasjon:	Pasienter med kreft
Tiltak:	Kostholdsveiledning
Utfall:	Overlevelse, livskvalitet, kroppsmasseindeks og vekt
Språk:	Ingen begrensning

Artikkelutvelging

Forskere (Jeppesen, Vang, Elvsaas) ved Kunnskapssenteret og Lund-Iversen ved Kreftforeningen gikk gjennom titler og sammendrag uavhengig av hverandre. Resultatet ble sammenlignet i etterkant. Uenighet ble avgjort ved konsensus.

Utvelgelse og sortering av litteratur ble kun gjort basert på tittel og sammendrag. Vi bestilte ikke artiklene i fulltekst.

Resultat

Resultat av søk

Søket etter litteratur ga 331 treff etter sletting av duplikater.

Resultat av sorteringen

Vi satt igjen med 22 referanser som svar på problemstillingen etter gjennomgang av søkeresultatet. I mai 2011 overleverte vi referansene alfabetisk etter førsteforfatter. Vi oppga forfattere, tittel på publikasjonen, publikasjonssted og sammendrag, slik de fremkom i de elektroniske databasene. Nedenfor har vi listet opp de inkluderte referansene med sammendrag. Den merkede teksten viser hvorfor vi mener at artiklene kan være relevante.

Det ble også laget og overlevert en liste med relevant bakgrunnslitteratur, i alt 65 referanser (vedlegg 2).

Inkluderte oversikter om effekt av kostholdsveiledning hos pasienter med kreft

2001 Standards, Options and Recommendations for nutritional support in adult patients with advanced or terminal cancer (full report). Nutrition Clinique et Metabolisme 2003 Sep;17(3):174-96.
Abstract: Context. - The << Standards, Options and Recommendations >> (SOR) project, which started in 1993, is a collaboration between the Federation of French cancer centers (FNCLCC), the 20 French regional cancer centers, and specialists from French public universities, general hospitals and private clinics. The main objective is the development of clinical practice guidelines to improve the quality of health care and the outcome of cancer patients. Objectives. - To develop clinical practice guidelines according to the definitions of the standards, options and recommendations project for nutritional support in adult patients with advanced or terminal cancer. Methods. - The methodology is based on a literature review and

critical appraisal by a multidisciplinary group of experts who define the CPGs according to the definitions of the Standards, Options and Recommendations project. Once the guidelines have been defined, the document is submitted for review by independent reviewers. Results. - The main recommendations for nutritional support in adult patients with advanced or terminal cancer are: 1/ Palliative care has been defined in a consensual way and is governed by the law (standard). Nutritional support is a palliative care which aim is to maintain and restore the "well-being" of the patient (standard). 2/ Karnofsky index (KPS) and performance status (PS) are functional scores with. 3/Anorexia has a bad predictive value in patients with advanced or terminal cancer (standard, level of evidence B2). 4/ In France, patients with advanced or terminal cancer are referred to medical institutions, palliative care units or remained at home (standard). Patients need a multidisciplinary follow-up (standard). An active participation of patients and/or their family circle is very important and physicians have to paid attention for their opinions (standard). 5/ Dietetic counseling can help patients to improve their alimentation and its drawbacks (standard). 6/ Palliative nutritional care often includes medicinal treatments (standard). 7/ Artificial nutrition can slow down nutritional degradation, avoid dehydration and improve quality of life in patients with advanced stage cancer (especially head and neck cancer for enteral nutrition and digestive occlusions for parenteral nutrition) and unable to eat adapted meals (standard, level of evidence C). 8/When life expectancy is below 3 months with a KPS <=50 % (or PS > 2), artificial nutrition does not probably improve patient's quality of life. In this case, artificial nutrition is not recommended (recommendation, expert agreement). 9/ The assessment of nutritional care in patients with advanced or terminal cancer has to include functional scores measurement, quality of life and satisfaction degree of the patient and/or their family (standard, expert agreement). 2002 Publie par Editions scientifiques et medicales Elsevier SAS

Abbott C. Integration of complementary disciplines into the oncology clinic. Part V. Nutritional counseling. Curr Probl Cancer 2000 Sep;24(5):242-67.

Adams LA, Shepard N, Caruso RA, Norling MJ, Belansky H, Cunningham RS. Putting evidence into practice: evidence-based interventions to prevent and manage anorexia. Clin J Oncol Nurs 2009 Feb;13(1):95-102.
Abstract: Anorexia is defined as an involuntary loss of appetite. Approximately 50% of newly diagnosed patients with cancer experience the symptom, which often is accompanied by weight loss and most typically associated with advanced disease. Anorexia significantly affects the clinical course of cancer; it can lead to the development or exacerbation of disease- or treatment-related symptoms, decreased functional status, and diminished quality of life. As part of the Oncology Nursing Society's Putting Evidence Into Practice initiative, a team of oncology nurses examined and evaluated published research literature for the purpose of developing an evidence-based practice resource focused on the management of cancer-related anorexia.

Even though anorexia is common among newly diagnosed patients and those with advanced disease, interventions to prevent, treat, and manage the symptom are limited. The evidence revealed that only two pharmacologic interventions, corticosteroids and progestins, can be recommended for use in clinical practice, and dietary counseling was identified as likely to be effective. This article summarizes selected empirical literature on interventions used to prevent and manage anorexia in patients with cancer. Familiarity with the literature will assist oncology nurses in proactively identifying and effectively managing patients experiencing this distressing symptom.

Arends J, Bodoky G, Bozzetti F, Fearon K, Muscaritoli M, Selga G, et al. ESPEN Guidelines on Enteral Nutrition: Non-surgical oncology. Clin Nutr 2006 Apr;25(2):245-59.

Abstract: Enteral nutrition (EN) by means of oral nutritional supplements (ONS) and tube feeding (TF) offers the possibility of increasing or ensuring nutrient intake in cases where normal food intake is inadequate. These guidelines are intended to give evidence-based recommendations for the use of ONS and TF in cancer patients. They were developed by an interdisciplinary expert group in accordance with officially accepted standards, are based on all relevant publications since 1985 and were discussed and accepted in a consensus conference. Undernutrition and cachexia occur frequently in cancer patients and are indicators of poor prognosis. EN should be started if undernutrition already exists or if food intake is markedly reduced for more than 7-10 days. Standard formulae are recommended for EN. Nutritional needs generally are comparable to non-cancer subjects. In cachectic patients metabolic modulators such as progestins, steroids and possibly eicosapentaenoic acid may help to improve nutritional status. EN is indicated preoperatively for 5-7 days in cancer patients undergoing major abdominal surgery. During radiotherapy of head/neck and gastrointestinal regions dietary counselling and ONS prevent weight loss and interruption of radiotherapy. Routine EN is not indicated during (high-dose) chemotherapy. The full version of this article is available at www.espen.org. 2006 European Society for Clinical Nutrition and Metabolism

Bachmann P, Marti-Massoud C, Blanc-Vincent MP, Desport JC, Colomb V, Dieu L, et al. [Standards, options and recommendations: nutritional support in palliative or terminal care of adult patients with progressive cancer]. Bull Cancer (Paris) 2001 Oct;88(10):985-1006.

Abstract: CONTEXT: The "Standards, Options and Recommendations" (SOR) project, started in 1993, is a collaboration between the National Federation of Comprehensive Cancer Centres (FNCLCC), the 20 French Cancer Centers and specialists from French Public Universities, General Hospitals and Private Clinics. The main objective is the development of clinical practice guidelines to improve the quality of health care and outcome for cancer patients. The methodology is based on literature review and critical appraisal by a multidisciplinary group of experts, with feedback from specialists in cancer care delivery. OBJECTIVES: To develop clinical practice

guidelines according to the definitions of the Standards, Options and Recommendations project for nutritional support in adult patients with advanced or terminal cancer. METHODS: Data were identified by searching Medline, web sites and using the personal reference lists of members of the expert groups. Once the guidelines were defined, the document was submitted for review to 95 independent reviewers. RESULTS: The main recommendations for nutritional support in adult patients with advanced or terminal cancer are: 1) Palliative care has been defined in a consensual way and is governed by the law (standard). Nutritional support is a palliative care which aim is to maintain and restore the "well-being" of the patient (standard). 2) Digestive symptoms and nutritional troubles are frequently noted in patients with advanced or terminal cancer (standard, level of evidence B2). Karnofsky index (KPS) and performance status (PS) are functional scores with a prognostic value and have to be used (standard, level of evidence B2). 3) Anorexia has a bad predictive value in patients with advanced or terminal cancer (standard, level of evidence B2). 4) In France, patients with advanced or terminal cancer are referred to medical institutions, palliative care units or remained at home (standard). Patients need a multidisciplinary follow-up (standard). An active participation of patients and/or their family circle is very important and physicians have to pay attention for their opinions (standard). 5) Dietetic counseling can help patients to improve their alimentation and its drawbacks (standard). 6) Palliative nutritional care often includes medicinal treatments (standard). 7) Artificial nutrition can slow down nutritional degradation, avoid dehydration and improve quality of life in patients with advanced stage cancer (especially head and neck cancer for enteral nutrition and digestive occlusions for parenteral nutrition) and unable to eat adapted meals (standard, level of evidence C). 8) When life expectancy is below 3 months with a KPS 3/4 50% (or PS > 2), artificial nutrition is not recommended (recommendation, expert agreement). 9) The assessment of nutritional care in patients with advanced or terminal cancer has to include functional scores measurement, quality of life and satisfaction degree of the patient and/or their family (standard, expert agreement).

Bozzetti F. Nutritional support in patients with oesophageal cancer. Support Care Cancer 2010 May;18(SUPPL. 2):S41-S50.

Abstract: Background: Obesity and overweight are risk factors for developing an oesophageal cancer, especially the adenocarcinoma in the distal oesophagus or at the gastroesophageal junction, and many patients still are overweight at the clinical presentation even if they are losing weight. Main mechanisms involved in weight loss are a decreased nutrients' intake and an alteration in metabolism due to a cytokine-driven inflammatory status. Malnutrition is a risk factor for a poor compliance to chemotherapy and radiation therapy and finally for the oncologic outcome. There is scientific evidence that frequently both conditions exist but in the advanced stages of disease metabolic alterations play a major role and are responsible for the poor response to nutritional support. Methods: The literature about the nutritional support in patients with cancer of the oesophagus has been reviewed with special emphasis on randomised clinical trials whenever available. In surgical patients, both

overweight and weight loss increase the risk of postoperative complications. Results: In non-dysphagic patients receiving a neo-adjuvant oncologic treatment, the simple use of oral nutritional supplements is little effective in ameliorating the nutritional status, in contrast, an intensive dietetic surveillance associated with oral supplements can lead to better nutritional status, improved quality of life and better compliance with therapy. In dysphagic patients, many comparative nonrandomised clinical studies have shown clinical benefits from tube feeding on the nutritional status and compliance with therapy. There is no apparent difference on the metabolic efficacy of the enteral versus parenteral nutrition. Studies on peri-operative nutrition in oesophagectomy patients were often underpowered and, hence, inconclusive, but the large experience on the nutritional support in patients with gastrointestinal cancer undergoing major abdominal surgery has clearly shown the benefits of the enteral nutrition. Both the American and the European Society for Parenteral and Enteral Nutrition have recognised a grade A recommendation for the nutritional support of malnourished gastrointestinal cancer patients undergoing major surgery. Conclusions In patients with oesophageal cancer on chemotherapy and/or radiation therapy, enteral nutrition (oral supplements +/- intensive counselling or tube feeding) is nutritionally and clinically beneficial. In surgical patients, a broad experience in major abdominal surgery supports the peri-operative use of enteral nutrition and especially of immune-enteral nutrition. Springer-Verlag 2009

Champetier S, Bataillard A, Lallemand Y, Montane C, Bachmann P, Blanc-Vincent MP, et al. [Good clinical practice in the dietetic management of cancer patients]. Bull Cancer (Paris) 2000 Dec;87(12):917-26.
Abstract: CONTEXT: The "Standards, Options and Recommendations" (SOR) project, started in 1993, is a collaboration between the Federation of the French Cancer Centres (FNCL CC), the 20 French Cancer Centres and specialists from French Public Universities, General Hospitals and Private Clinics. The main objective is the development of clinical practice guidelines to improve the quality of health care and outcome for cancer patients. The methodology is based on literature review and critical appraisal by a multidisciplinary group of experts, with feed-back from specialists in cancer care delivery. OBJECTIVES: To develop clinical practice guidelines according to the definitions of Standards, Options and Recommendations for the dietetic consultation for cancer patient. METHODS: Data have been identified by literature search wing Medline and the expert groups personal reference lists. Once the guidelines were defined, the document was submitted for review to 74 independent reviewers, and to the medical committees of the 20 French Cancer Centres. RESULTS: The main recommendations for the referral of cancer patients for dietary advice are: I) in oncology, there are 3 types of dietetic consultation: diagnostic, preventive and therapeutic; 2) the following cancer patients must have a dietetic consultation: i) those with, or at risk of malnutrition, ii) those without malnutrition but in need of counseling and iii) those at risk of treatment-related nutritional side effects; 3) a nutritional assessment is standard at the time of the first dietetic consultation. Patients must be given individualized and written advice; 4) the dietetic opi-

nion and advice should be brought to the attention of medical staff to facilitate a multidisciplinary approach to cancer treatment; 5) patient's relatives should be involved in the dietetic management; 6) the efficacy of dietetic advice can be assessed by monitoring weight, gastrointestinal signs and patient satisfaction

Chlebowski RT, Palomares MR, Lillington L, Grosvenor M. Recent implications of weight loss in lung cancer management. Nutrition 1996 Jan;12(1:Suppl):Suppl-7.

Abstract: Successful lung cancer management has been hindered by the limited efficacy of dietary and pharmacologic interventions to prevent or reverse cancer-associated weight loss. The addition of total parenteral nutrition to chemotherapy in early trials was associated with survival detriment. Dietary counseling and enteral supplement use are common strategies that, when evaluated in randomized trials, do not improve anthropometrics or clinical outcome in lung cancer. Pharmacologic agents including corticosteroids, cyproheptadine, growth hormone, hydrazine sulfate, dronabinol, and pentoxyphylline also have failed to improve even anthropometric parameters in this condition. Megestrol acetate use is associated with appetite stimulation and non-fluid weight gain but, when evaluated in small cell lung cancer patients receiving defined chemotherapy, failed to improve global quality of life, and survival and was associated with toxicity. New strategies for nutrition-based interventions in lung cancer cachexia must consider their potential influence on tumor growth as well as on nutritional status. Recent lung cancer prognostic analyses have identified gender differences in outcome and weight loss that suggest potential targets for combined hormonal and nutrition interventions. Emerging information regarding the influence of specific fatty acids on tumor growth and cachexia development have identified additional approaches for future evaluation.

Demark-Wahnefried W, Morey MC, Sloane R, Snyder DC, Cohen HJ. Promoting healthy lifestyles in older cancer survivors to improve health and preserve function. J Am Geriatr Soc 2009 Nov;57:Suppl-4.

Abstract: Currently, there are about 7 million cancer survivors in this country aged 65 and older, and this number is expected to increase rapidly, given trends toward aging and improvements in early detection and treatment. Unfortunately, cancer survivors are at risk for several comorbid conditions and accelerated functional decline. A previous cross-sectional study of 688 older breast and prostate cancer survivors found significant associations between lifestyle practices and levels of physical functioning, with positive associations noted for physical activity and fruit and vegetable consumption and negative associations observed for dietary fat. In a more-recent cross-sectional study of 753 older survivors of breast, prostate, and colorectal cancer, significant associations were also observed between physical function, and physical activity (rho=0.22, P<.001) and diet quality (rho=0.07, P=.046), and a significant negative association was also found between physical function and body mass index (rho=-0.29, P<.001). Therefore, lifestyle interventions may be helpful in positively reorienting the trajectory of functional decline in this vulnerable popula-

tion, although there are substantial barriers, such as travel, that must be overcome in delivering behavioral interventions to older cancer survivors. Previously reported results from the Pepper Center-funded Leading the Way in Exercise and Diet Project intervention development study suggested that an exercise and diet intervention delivered using telephone counseling and mailed materials was readily accepted and appeared to be of benefit. Larger trials, such as Reach-out to ENhancE Wellness in Older Survivors, have recently produced compelling data.

Garg S, Yoo J, Winquist E. Nutritional support for head and neck cancer patients receiving radiotherapy: a systematic review. Support Care Cancer 2010 Jun;18(6):667-77.

Abstract: PURPOSE: Squamous cell carcinoma of the head and neck (HNSCC) is associated with weight loss before, during, and after treatment with radiotherapy (RT). This systematic review addressed the question "Which interventions aimed at optimizing nutrition are of benefit to HNSCC patients receiving RT?" METHODS: Randomized controlled trials (RCTs) studying interventions directed at nutritional support of adult patients with HNSCC receiving RT with or without chemotherapy were eligible. RCTs studying prophylaxis of acute mucositis, perioperative nutrition, or palliative and non-HNSCC populations were excluded. A comprehensive literature search was done and meta-analyses planned. RESULTS: Ten unique RCTs were identified (n = 585). All randomized less than 50 patients per trial arm. Five trials studied dietary counseling and/or nutritional supplements, four studied drug interventions, and one studied prophylactic enteral tube feeding. Nutritional status appeared to be maintained or improved with dietary counseling, megestrol acetate, and prophylactic enteral tube feeding. CONCLUSIONS: Data from RCTs supporting the use of interventions to optimize nutrition in HNSCC patients receiving RT are limited in both quantity and quality. Potentially effective interventions have not been tested comparatively or in combination, and few patients receiving chemoradiotherapy were studied. Further research in this area is a priority.

Halfdanarson TR, Thordardottir E, West CP, Jatoi A. Does dietary counseling improve quality of life in cancer patients? A systematic review and meta-analysis. The Journal of Supportive Oncology 2008 May;6(5):234-7.

Abstract: Results have been mixed as to whether dietary counseling improves clinical outcomes in cancer patients. This systematic review and meta-analysis of randomized trials assessed the effect of dietary counseling on quality of life (QOL). It included only randomized trials that focused on dietary counseling and that relied upon a standardized QOL measurement. Five trials that met these and all other a priori eligibility criteria were identified; they are the focus of this meta-analysis. When these five studies were examined in aggregate, the standardized mean difference in QOL scores among patients who received dietary counseling was 0.56 (95% confidence interval,-0.01-1.14; P = 0.06). Dietary counseling does not appear to im-

prove QOL significantly in patients with cancer. However,an observed trend toward benefit underscores the need for further study.

Meuric J, Garabige V, Blanc-Vincent MP, Lallemand Y, Bachmann P. [Good clinical practice in nutritional management of head and neck cancer patients]. Bull Cancer (Paris) 1999 Oct;86(10):843-54.

Abstract: CONTEXT: The "Standards, Options and Recommendations" (SOR) project, started in 1993, is a collaboration between the Federation of the French Cancer Centres (FNCLCC), the 20 French Cancer Centres and specialists from French Public Universities, General Hospitals and Private Clinics. The main objective is the development of clinical practice guidelines to improve the quality of health care and outcome for cancer patients. The methodology is based on literature review and critical appraisal by a multidisciplinary group of experts, with feedback from specialists in cancer care delivery. OBJECTIVE: To develop clinical practice guidelines according to the definitions of Standards, Options and Recommandations for the nutritional management of the head and neck cancer patients. METHODS: Data have been identified by literature search using Medline and the expert groups personal reference lists. Once the guidelines were defined, the document was submitted for review to 121 independent reviewers, and to the medical committees of the 20 French Cancer Centres. RESULTS: The main recommendations for the nutritional management of head and neck cancer patients are that: 1) Nutritional management prevents undernutrition, improves quality of life, reduces adverse effects of the treatment and prevents treatment delay; 2) The nutritional management of the head and neck cancer patient must be done before, during and after cancer treatment; 3) Before treatment, the weight of the patient must be assessed: 10% of weight loss in 6 months requires to an urgent nutritional intervention; 4) During radiation therapy, feeding should be adapted to various characteristics such as swallowing mechanism, side effects of the treatment, age; 5) During chemotherapy, nutrition must be checked and assessed at each cycle; 6) During surgery, enteral feeding must be stopped and nasogastric feeding progressively introduced starting on day 1 postoperatively. The quality of feed must be adequate during all the healing period. Close surveillance of fever and regurgitation allows regular review of the amount and nature of enteral feed to be given; 7) The patients are given individualised and written advice at the end of treatment and the nutritional follow-up must be planned

Monnin S, Schiller MR. Nutrition counseling for breast cancer patients. J Am Diet Assoc 1993;93(1):72-3.

Moreland SS. Nutrition screening and counseling in adults with lung cancer: a systematic review of the evidence. Clin J Oncol Nurs 2010 Oct 1;14(5):609-14.

Abstract: Maintenance of adequate nutrition is an integral component of the cancer treatment process. Numerous factors should be considered when evaluating the nutritional status of patients with cancer. A systematic review of the literature revealed

the importance of nutrition interventions in patients with cancer who were undergoing chemotherapy. Counseling in nutrition has been shown to improve quality of life, strengthen response to therapy, and increase survival. Lung cancer presents a significant risk as the leading cause of cancer morbidity and mortality in the United States. In addition, nutritional deficiencies are experienced by most adults with lung cancer during the course of their disease and treatment. The deficiencies compound the cost of treatment and also increase morbidity and mortality in this patient population. Further study of nutritional interventions is needed to promote better outcomes and quality of life in patients with lung cancer

Pezner R, Archambeau JO. Critical evaluation of the role of nutritional support for radiation therapy patients. Cancer 1985 Jan 1;55(1:Suppl):Suppl-7.

Abstract: Nutritional intake or absorption may be compromised by radiation therapy (RT) when large portions of the gastrointestinal tract are treated. Dietary counseling, oral supplements, tube feedings and intravenous hyperalimentation (IVH) have been employed to limit weight loss and lessen intestinal RT side effects. Unfortunately, no prospective study reviewed has shown improved tumor control or patient survival. Special diets and IVH have also been employed in select patients to relieve chronic malabsorption from severe radiation enteritis.

Ravasco P, Monteiro G, I, Camilo M. Cancer wasting and quality of life react to early individualized nutritional counselling! Clin Nutr 2007 Feb;26(1):7-15.

Abstract: To devise a meaningful nutritional therapy in cancer, a greater understanding of nutritional dimensions as well as patients' expectations and disease impact is essential. We have shown that nutritional deterioration in patients with gastrointestinal and head and neck cancer was multifactorial and mainly determined by the tumour burden and location. In a larger cohort, stage and location were yet again the major determinants of patients' quality of life (QoL), despite the fact that nutritional deterioration combined with intake deficits were functionally more relevant than cancer stage. Based on this framework, the potential role of integrated oral nutritional support on outcomes was investigated. In a pilot study using individualized nutritional counselling on a heterogeneous patient population, the achieved improvement of nutritional intake was proportional to a better QoL. The role of early nutritional support was further analysed in a prospective randomized controlled trial in head and neck cancer patients stratified by stage undergoing radiotherapy. Pre-defined outcomes were: nutritional status and intake, morbidity and QoL, at the end and 3 months after radiotherapy. Nutritional interventions, only given during radiotherapy, consisted of three randomization arms: (1) individualized nutritional counselling vs. (2) ad libitum diet+high protein supplements vs. (3) ad libitum diet. Nutritional interventions 1 and 2 positively influenced outcomes during radiotherapy; however, 3 months after its completion individualized nutritional counselling was the single method capable of sustaining a significant impact on patients' out-

comes. The early provision of the appropriate mixture of foods and textures using regular foods may modulate outcomes in cancer patients.

Robien K, Snyder DC, Kiyomoto D, Elliott L, Frankmann C. Dietary counseling and quality of life. Journal of Supportive Oncology 2008;6(8):353.

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Senesse P. [Nutrition and oncogeriatry]. Cancer Radiother 2009 Oct;13(6-7):628-31.
Abstract: In oncogeriatric patients, severe malnutrition is associated with increased morbidity and mortality, nosocomial infections, radiotherapy or chemotherapy toxicities, and decreased of quality of life. Therefore, systematic screening and care of malnutrition is mandatory, in accordance with the French guidelines in 2007. Now, dietary counselling should be purposed systematically in malnourish patients and when radiotherapy or radiochemotherapy are considered. Oral supplementation by specific diet (immune-enhancing diets) should be used with cautions, and actually, reserved only in digestive neoplasms and surgery. In cases of severely malnourished patients or if dietary counselling suffers a setback, enteral nutrition should be recommended. In radiotherapy or chemotherapy, used parenteral nutrition is associated with an increase in infectious complications. Artificial nutrition should not be used when Karnofski index is lesser than 50% (or performance status greater than 2) and prognosis lesser at three months

Senesse P, Altwegg R, Vercambre L, Assenat E. Importance of nutritional support in gastrointestinal cancers. Oncologie 2008 Mar;10(3):197-201.
Abstract: In patients with gastrointestinal cancer, the systematic screening of nutritional status is mandatory. Malnutrition is widely recognized as a significant source of postoperative morbidity and high rates of toxicity during chemotherapy or radiotherapy, resulting in longer hospital stays, increased medical costs, decreased performance status, and lower quality of life. Patients who experience weight loss should receive dietary counselling and immunonutrition. For surgical patients, practical information, such as weight status and subjective global assessment data, provides a solid basis for deciding whether or not to delay surgery. At least 10 days of nutritional support is recommended in severely malnourished patients before major gastrointestinal surgery. In patients with less severe malnutrition, preoperative oral

immunonutrition is associated with a 50% decrease in postoperative complications. The benefit of immune-enhancing diets in severely malnourished patients remains to be proven. Dietary counselling should be offered to all patients undergoing radiochemotherapy. In cases of severely malnourished patients, or if dietary counselling is ineffective, enteral nutrition is recommended. Parenteral nutrition should be reserved for patients with severe digestive intolerance when enteral nutrition is not possible. In conclusion, it is essential to provide individualized nutritional support at every step in a multimodal treatment programme for gastrointestinal cancer. These recommendations should be used in daily practice but should also be included in all clinical research protocols. 2008 Springer Verlag

Senesse P, Assenat E, Schneider S, Chargari C, Magne N, Azria D, et al. Nutritional support during oncologic treatment of patients with gastrointestinal cancer: who could benefit?. Cancer Treat Rev 2008 Oct;34(6):568-75.

Abstract: INTRODUCTION: In patients with gastrointestinal (GI) cancer, severe malnutrition is associated with increased morbidity and mortality, reduction of treatment efficacy, and increased length of hospital stay. Therefore, systematic screening and care of malnutrition is mandatory. MATERIALS AND METHODS: Data for this review were identified by searches of Medline with and without MeSH database and Cancerlit. Studies were selected only if they were randomised clinical trials or historical reports. References were also identified from reference lists in relevant previously published articles. Recent guidelines and meta-analyses were included. Only articles published in English were taken into consideration. RESULTS: For surgical patients, practical information such as weight loss or subjective global assessment would provide a better basis for deciding whether or not to delay surgery. At least 10 days of nutritional support is recommended in severely malnourished patients before major digestive surgery. In non-severely malnourished patients, preoperative oral immunonutrition is associated with a 50% decrease in postoperative complications. The benefit of immune-enhancing diets in severely malnourished patients remains to be proven. For patients undergoing radiochemotherapy, dietary counselling should be proposed to all patients. In cases of severely malnourished patients or if dietary counselling suffers a setback, enteral nutrition should be recommended. Parenteral nutrition should be reserved for patients with severe digestive intolerance when enteral nutrition is not possible. CONCLUSION: Propose an adaptive nutritional support at each step of a multimodal GI oncological treatment is essential. These recommendations should be used in daily practice but should also be included in all clinical research protocols.

Diskusjon

Styrker og svakheter ved systematisk litteratursøk med sortering

Ved systematisk litteratursøk med sortering gjennomfører vi systematiske søk etter litteratur for forskningsspørsmål etter PICO-modellen (1). Her står P for populasjon (population), I for tiltak (intervention), C for sammenlikning (comparison) og O for utfall/eksponering (outcome). PICO er spesielt egnet for spørsmål om effekt av tiltak.

Etter at søket er utført, går vi gjennom resultatene fra søket og sorterer ut ikke-relevante referanser i henhold til inklusjonskriteriene. Sorteringen gjør vi basert på tittel og sammendrag. Artiklene hentes ikke inn i fulltekst. Manglende innhenting av artikler i fulltekst gjør at vi kan ha inkludert referanser som viser seg ikke å være relevante ved gjennomlesning av artiklene i fulltekst.

Vi benytter kun databaser for identifisering av litteratur. Andre måter å identifisere studier på, som søk i referanselister, kontakt med eksperter på fagfeltet og upublisert litteratur, blir ikke utført i dette oppdraget. Vi kan derfor ha gått glipp av potensielt relevante studier. Vi gjennomfører ingen kvalitetsvurdering av artiklene.

I en fullstendig kunnskapsoversikt (systematisk oversikt/HTA) ville vi innhentet artiklene i fulltekst for endelig vurdering opp mot inklusjonskritene. Inkluderte studier ville blitt kvalitetsvurdert i henhold til våre sjekklister, og resultater ville blitt sammenstilt og diskutert.

Referanser

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Vedlegg

Vedlegg 1 Søkestrategi

Søkestrategi i The Cochrane Library

Database: The Cochrane Library:
- CDSR: Issue 4 of 12, Apr 2011
- DARE og HTA: Issue 2 of 4, Apr 2011

Dato: 03.05.2011

Antall treff:
- Cochrane reviews (CDSR): 1
- Other reviews (DARE): 1
- Technology Assessments (HTA): 0

#1 MeSH descriptor Neoplasms explode all trees
#2 (cancer* or neoplasm*):ti,ab,kw
#3 (#1 OR #2)
#4 MeSH descriptor Counseling, this term only
#5 MeSH descriptor Directive Counseling, this term only
#6 (#4 OR #5)
#7 MeSH descriptor Diet Therapy, this term only
#8 MeSH descriptor Diet, this term only
#9 MeSH descriptor Dietetics, this term only
#10 (diet* or nutrition*):ti,ab,kw
#11 (#7 OR #8 OR #9 OR #10)
#12 (#6 AND #11)
#13 ((diet* or nutrition*) near/3 (counsel* or consultation*)):ti,ab,kw
#14 (nutrition* next (advice* or information or brochure*)):ti,ab,kw
#15 (#13 OR #14)
#16 (#12 OR #15)
#17 (#3 AND #16)

Søkestrategi i CRD-databasene

Database: Centre for Reviews and Dissemination: Database of Abstracts of Reviews of Effects (DARE) og Health Technology Assessment Database (HTA)
Dato: 04.05.2011
Antall treff:

- DARE: 9
- HTA: 0

Kommentarer: For å fange opp de aller nyeste oversiktene fra DARE og HTA databasen som muligens ikke er blitt inkludert i The Cochrane Library enda, utførte vi et tilleggssøk i disse databasene via nettsidene til The Centre for Reviews and Dissemination. Søket ble avgrenset til perioden 01.05.2010-04.05.2011 (entry date).

1 MeSH DESCRIPTOR neoplasms EXPLODE ALL TREES WITH QUALIFIER undefined
2 (neoplasm*) OR (cancer*)
3 #1 OR #2
4 MeSH DESCRIPTOR counseling WITH QUALIFIER undefined
5 MeSH DESCRIPTOR Directive Counseling WITH QUALIFIER undefined
6 #4 OR #5
7 MeSH DESCRIPTOR Diet Therapy WITH QUALIFIER undefined
8 MeSH DESCRIPTOR Diet WITH QUALIFIER undefined
9 MeSH DESCRIPTOR Dietetics WITH QUALIFIER undefined
10 (diet*) OR (nutrition*)
11 #7 OR #8 OR #9 OR #10
12 #6 AND #11
13 ((diet* OR nutrition*) AND (counsel* OR consultation*))
14 (nutrition* AND (advice* OR information OR brochure*))
15 #13 OR #14
16 #12 OR #15
17 #3 AND #16
18 (#3 AND #16) IN DARE, HTA WHERE PD FROM 01/05/2010 TO 04/05/2011

Søkestrategi i Ovid EMBASE

Database: Ovid EMBASE 1980 to 2011 Week 17
Dato: 03.05.2011
Antall treff: 226

1. exp neoplasm/
2. cancer patient/
3. (cancer$ or neoplasm$).tw.
4. 1 or 2 or 3
5. Nutritional counseling/

6. ((diet$ or nutrition$) adj3 (counsel$ or consultation$)).tw.
7. (nutrition$ adj (advice$ or information or brochure$)).tw.
8. 5 or 6 or 7
9. 4 and 8
10. limit 9 to "reviews (2 or more terms high sensitivity)"

Søkestrategi i Ovid Pre-MEDLINE og MEDLINE

Database: Ovid MEDLINE(R) In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) 1948 to Present (April 29, 2011)
Dato: 03.05.2011
Antall treff: 179

1. exp neoplasms/
2. (cancer$ or neoplasm$).tw.
3. 1 or 2
4. counseling/ or directive counseling/
5. Diet Therapy/
6. Diet/
7. dietetics/
8. (diet$ or nutrition$).tw.
9. 5 or 6 or 7 or 8
10. 4 and 9
11. ((diet$ or nutrition$) adj3 (counsel$ or consultation$)).tw.
12. (nutrition$ adj (advice$ or information or brochure$)).tw.
13. 11 or 12
14. 10 or 13
15. 3 and 14
16. limit 15 to "reviews (sensitivity)"

Vedlegg 2 Bakgrunnslitteratur/mulig relevant litteratur om kostholdsveiledning i kreftbehandling

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