NUTRITION INTERVENTIONS FOR ORAL MUCOSITIS

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Understand the research that is available for nutrition interventions

Recognize the negative impact oral mucositis may have on a patient’s treatment and quality of life
WHAT IS MUCOSITIS?

- Effects the epithelial lining of the gastrointestinal tract \(^{(5,6,7,10)}\)
- Common side effect of chemotherapy/radiation therapy \(^{(8,9,10)}\)
  - 40% of patients undergoing chemotherapy develop oral mucositis \(^{(9)}\)
  - 30-60% head and neck cancer patients treated with radiation develop oral mucositis \(^{(9)}\)
- May lead to decrease tolerance of chemotherapy/radiation therapy \(^{(7,8,9)}\)
- May lead to malnutrition and cachexia \(^{(1)}\)
- Increased risk for infection \(^{(6,11)}\)
- Economic impact \(^{(8)}\)
WORLD HEALTH ORGANIZATION GRADING OF MUCOSITIS (8,12)

0. No oral mucositis
1. Painless ulcers, erythema, or mild soreness
2. Painful erythema, edema, or ulcers but can eat
3. Painful erythema, edema, or ulcers and cannot eat
4. Requires parenteral or enteral support
Clinical Grading \(^{(8)}\)
- 1. Erythema of the mucosa
- 2. Patchy ulcerations of pseudomembranes
- 3. Confluent ulcerations or pseudomembranes; bleeding with minor trauma
- 4. Tissue necrosis; significant spontaneous bleeding; life-threatening
- 5. Death

Functional/Symptomatic \(^{(8)}\)
- 1. Minimal symptoms, normal diet
- 2. Symptomatic but can eat and swallow modified diet
- 3. Symptomatic and unable to adequately aliment or hydrate orally
- 4. Symptoms associated with life-threatening consequences
- 5. Death
NUTRITION COMPLICATIONS

- Inadequate intake
- Unplanned weight loss
  - Cancer patients with oral mucositis had >5% weight loss compared to those who did not have mucositis (8)
- Malnutrition
  - Malnutrition occurs in 15% to 80% of all cancer patients (3)
  - Decreased nutritional status can increase risk for developing oral mucositis (5)
  - Malnourished patients are more likely to develop infections (3)
    - Rate of infection during cycles with mucositis was more than twice compared to those without (8)
In a retrospective random study it was found:

- Patient's hospitalized for solid tumors or lymphoma without mucositis cost: $3,893 (8)
- Patient's hospitalized for solid tumors/lymphoma with oral mucositis cost: $6,277 (8)
- Patient's hospitalized for solid tumors/lymphoma with both oral and GI mucositis cost: $9,132 (8)

In the same study an increase in severity of mucositis led to an increase in TPN days, among other increased needs (8)

- Total: an additional $25,000 in hospital charges due to mucositis (8)
NUTRITION CARE PROCESS

- Nutrition Assessment
  - Nutritional status
  - History of mucositis
  - Oral hygiene prior to treatment
  - Nutrition focused physical exam

- Nutrition Diagnosis
  - Inadequate intake
  - Unintended weight loss
  - Inadequate calorie/protein intake
  - Biting/Chewing (masticatory) difficulty
Meals and Snacks:
Small frequent meals
Eating warm/room temperature foods
Soft diet and liquid nutritional supplements
Using a straw to avoid coming in contact with ulcers
Avoid acidic foods i.e. tomatoes, grapes, apple juices, spicy foods
Energy-modified diet

Collaboration with other providers:
Gastrostomy tube placed prophylactically

Enteral and Parental Nutrition

Feeding Assistance:
Mouth Care
THERAPEUTIC INTERVENTIONS

- Cryotherapy\(^{(8)}\)
- Topical vitamin E \(^{(11)}\)
- Mouth wash combinations: saline, lidocaine + anesthetics \(^{(8)}\)
- Recombinant human keratinocyte growth factor (KGF) \(^{(8,11)}\)
  - Palifermin
- Chemocare.com
MONITORING & EVALUATION

- BMI
- Weight
- Nutrition-focused physical findings:
  - Subjective oral mucositis pain
  - Muscle wasting, fat loss
- Food/beverage intake
- Enteral and parenteral nutrition intake
CONCLUSION

- Communicating with the patient and healthcare team - RDs may not be the first point of contact with a patient
- Knowing when to recommend and implement nutrition interventions
- Performing in a proactive manner
- Encouraging a good nutritional status prior to and during treatment
- There is a need for further research
THANK YOU

QUESTIONS?

HELPFUL RESOURCES:

CHEMOCARE.COM
A.S.P.E.N.
ACADEMY OF NUTRITION AND DIETETICS: ONCOLOGY NUTRITION
NATIONAL CANCER INSTITUTE


