Nutrition in the Elderly

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Outline

- Basics
- Age Related Changes
- Special Diets
- Malnutrition
- Screening
- Outcomes
- Treatment possibilities
Basics

- **Energy Needs**
  - 25–30 cal/kg/day
  - Lipids (Fat) = 9 cal/g = 25-30% of calories

- **Protein**
  - 0.8–1.5 g/kg/day
  - 4 cal/g = 10-35% of total calories

- **Fluids**
  - Oral, IV, TPN

- **Micronutrients**
  - Vitamins, Minerals, Fiber
Age Related Changes

- Body Composition
- Energy Requirements
- Micronutrients
- Fluid Needs
Special Considerations

- Low salt “Cardiac Diet”
- No concentrated sweets “ADA Diet”
- Low $K^+$, $\text{Ph}^-$, protein “Renal Diet”
- Puree $\rightarrow$ Soft $\rightarrow$ Regular “Mechanical Diet”
Malnutrition

- 5% in 1 month or 10% in 6 months
- Minimal BMI = 18.5
- #1 Prevention
- Medications? Depression?
Malnutrition

- **Prevalence**
  - 23 – 85% of nursing home residents
  - 54% malnourished at time of admission

- **Adverse effects:**
  - Cytopenia
  - Fracture
  - Fatigue
  - Decreased cognition
  - Ulcers
  - Edema
Nutrition and Outcomes

- Cochrane Database of Systematic Reviews of 2464 randomized patients
  - Weight gain, mortality, hospitalization

- Post operatively
  - Grip strength, quality of life, morbidity (Beattie et al)

- Hip fracture
  - Less bone loss, rehabilitation time (Tkatch et al)
Nutrition Screening

- Disease
- Eating poorly
- Tooth loss, mouth pain
- Economic hardship
- Reduced social contact
- Multiple medicines
- Involuntary weight loss or gain
- Need for assistance in self-care
- Elderly (age > 80)
Supplementation

- First things first
- Small frequent snacks
  - Simple supplements
- Commercial Supplementation
  - Ensure, Boost, etc.
Orexigenic Medications

- Megestrol (Magase)
- Mirtazapine (Remeron)
- Cyproheptadine (Periactin)
- Dronabinol (Marinol)
- HGH, Steroids, Testosterone
Conclusions

- Nutrition and age related changes
- Screening for and diagnosing malnutrition
- Importance of prevention/treatment
- Step-wise options for treatment
- Orexigenic Medications
Thank You!

Questions?
References

- Monaco, Marco Di MD; Vallero, Fulvia MD; Monaco, Roberto Di PhD; Tappero, Rosa MD; Cavanna, Alberto MD Serum Levels of Insulin-Like Growth Factor-I Are Positively Associated with Functional Outcome After Hip Fracture in Elderly Women. [Article.]American Journal of Physical Medicine & Rehabilitation. AN: 00002060-900000000-99914.