Voeding bij slokdarm- en maagpathologie

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Voeding bij slokdarm- en maagpathologie

- Gastro-esofagale reflux
- Dyspepsie
- Dumping syndroom
- Ulcus en gastritis

Gastro-esophageal reflux

- Dietary measures: classic part of "life-style" measures

  (lowest level of evidence: level IV)

  (DeVault et al. Updated guidelines for the diagnosis and treatment of GE reflux disease, Am J GE, 2005):
  - decreased fat intake
  - avoiding lying down after eating for 2-3 h
  - avoid certain foods (chocolate, alcohol, pippermint, coffee, onions and garlic)
  - attempt to lose weight
  - avoid carbonated drinks (Meining, Classen, 2000)
- The true efficacy of these measures is almost completely lacking.

Evidence for nutrient intake on GE reflux

- Physiological studies: effects of certain nutrients on the lower esophageal sphincter pressure, and on pH
- Epidemiological data: Dietary intake registrations, and relation with symptoms
- No good clinical studies

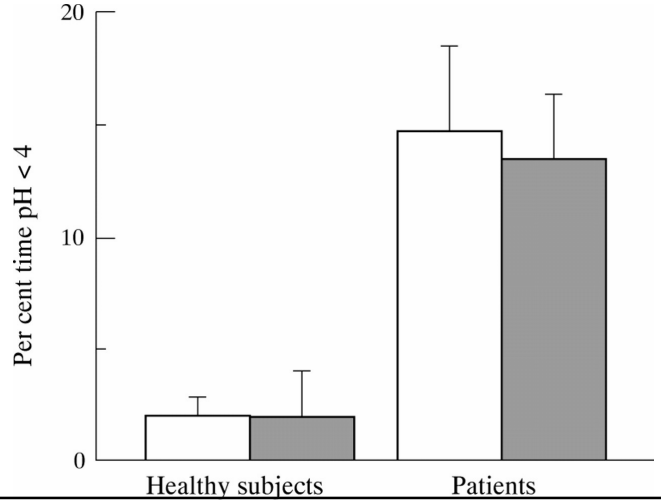
Gastro-esophageal reflux and fat

- Not fat as such, but fried foods are reported to cause symptoms (Nebel, 1976)
- fat intake on itself does not increase reflux (Penagini, Gut, 1998)
- Even low amounts of fat can induce lower ge sphincter pressure (e.g. whole fat milk vs no-fat milk)
- volume of a meal seems to be more important than fat or caloric density (Pehl, Al Pharmacol Ther, 2001): better advise : avoid large meals,
  or decrease caloric load (Colombo P, 2002)
- In children : also osmolarity is important

- Epidemiological studies: high dietary fat intake is associated with an increased risk of gastro-esophageal reflux (El-Serag, Gut 2005)
  (fiber possibly protective in that study)

R Penagini (Gut 1998)

esophageal acid exposure after balanced (open column) and the high fat meals (shaded column)
in healthy controls and patients with GE reflux



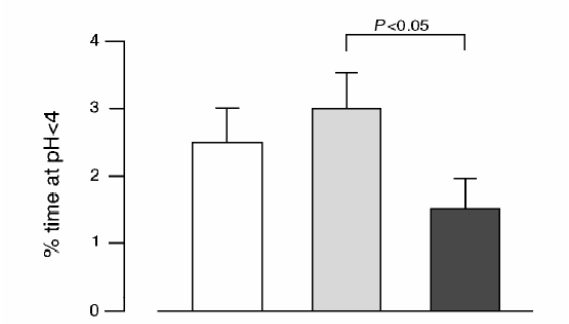


Fig. 1. Oesophageal acid exposure after the high-fat 2.8 MJ □, the balanced 2.8 MJ ▩ and the balanced 1.6 MJ meal ■. Data are expressed as mean values (s_M).

Effect of calories and fat on postprandial gastro-oesophageal reflux.
Colombo P, et al. Scand J GE, 2002

Gastro-esophageal reflux and coffee

The amount of gastro-oesophageal reflux induced by the intake of regular coffee in patients with reflux disease can be reduced by the decaffeination of coffee
(Pehl, Al Pharmacol Ther 1997)

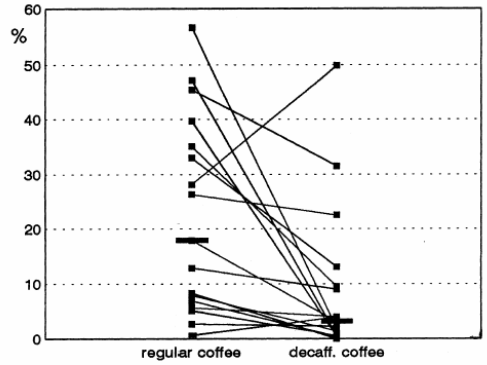


Figure 1. Fraction time oesophageal pH < 4 in the three postprandial hours after ingestion of regular and decaffeinated coffee together with a standardized breakfast in 17 patients with GERD (black bars represent the medians).

Gastro-esophageal reflux carbonated drinks and other beverages

- Carbonated beverages increase number of transient lower esophageal sphincter relaxations
- No difference between carbonated water, caffeine-free pepsi or regular pepsi (Crookes, 1999)
- Acid drinks give more heartburn (juices of citrus products) (Feldman, Gastroenterology 1995)

Lifestyle related risk factors in the aetiology of gastro-oesophageal reflux
Nilsson et al., Gut 2004:53:1730-5

- Large population study: 3153 subjects with reflux symptoms, 40210 controls
- Risk factors:
  - smoking
  - table salt intake
- Protective
  - dietary fibres
  - physical activity (30 min/w)
  - alcohol use! (reversed causality?)
  - coffee ! (reversed causality?)

Gastro-esophageal reflux and overweight

Contradictory results for relation between BMI and symptoms Swedish vs American study

Table 1 Prevalence of reflux symptoms by body mass index (BMI)

Category	*Lagergren et al*	*Locke et al*
Setting	Sweden	USA
Sample size	820	1524
Sex	M/F	M/F
Mean age (y)	66	50
Measurement of BMI	Maximum	Current
BMI <25/<24	16%	15%
BMI 25–29/24–27	16%	17%
BMI 27–30	No data	20%
BMI >30	17%	30%

Gastro-esophageal reflux and overweight

Relation between body mass and (endoscopic) oesophagitis

(Scand J GE Nilsson, 2002)

Gastro-esophageal reflux and overweight

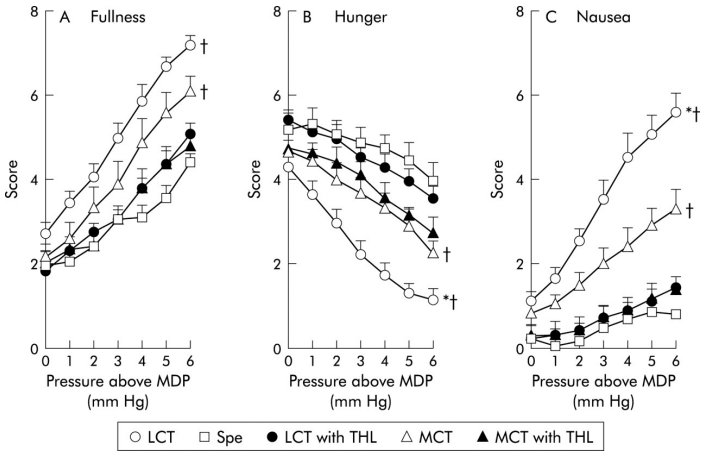
- Limited data that weight loss leads to symptomatic amelioration in pts with moderate overweight (BMI > 23) and reflux symptoms
  (study in 34 pts,of which 27 lost weight) (Fraser-Moodie, Scand J GE 1999) (also conflicting data)

- In severe obese pts (BMI 48) treated with bariatric surgery (gastric bypass): significant decrease in reflux symptoms (152 patients)(confirmed by others)
  (Frezza, Surg End 2002)

Functional dyspepsia and food intake

- Many patients with functional dyspepsia, suffer from weight loss (30-50 % in selected series)
- Reported 'food intolerances' in literature
  (from C. Feinle-Bisset, Am J GE 2004)
  - onion, peppers, spices, carbonated beverages, fatty foods
  - other study: mayonnaise, nuts, fish, chocolate
  - intolerance to fat: common (and more common in women?)
- Experimental evidence that fat in duodenum increases dyspeptic symptoms
  (Fried 2002))
- Role of cognitive influences in food intolerance? (due to previous negative learning experience)
  (Feinle-Bisset 2003)

Scores for fullness (A), hunger (B), and nausea (C) during isobaric gastric distension and duodenal infusion of different fat emulsions. LCT, long chain triglycerides; MCT, medium chain triglycerides; Spe, sucrose polyester; THL, tetrahydrolipstatin (=orlistat); MDP, minimum distending pressure. *p<0.05, LCT versus LCT with THL; {dagger}p<0.05 versus Spe.



Fried, M et al. Gut 2002;51:54i-57i

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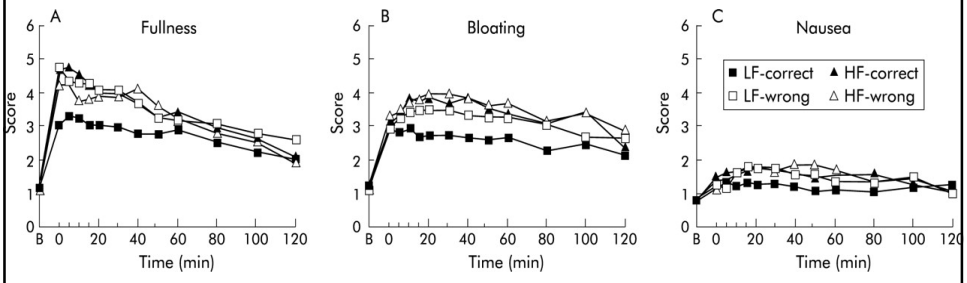
Figure 2 Scores for fullness (A), bloating (B), and nausea (C) following ingestion of a high fat (HF) or a low fat (LF) yoghurt with patients receiving either the correct (that is, "this is a HF yoghurt" or "this is a LF yoghurt", respectively) or the wrong (that is, "this is a LF yoghurt" or "this is a HF yoghurt", respectively) information with regard to the fat content of the yoghurts. Data are means of n = 15 patients.



Feinle-Bisset, C et al. Gut 2003;52:1414-1418

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Dumping syndroom oorzaken

"Klassieke" oorzaak duming verminderd (gastrectomie voor ulcuschirurgie), maar vele "nieuwe" oorzaken

- Verminderde barrière thv antrum/pyloor (bv BII, antrectomie, pyloroplastie)
- Bypass pyloor (bv. gastric bypass)
- Beschading vagus (bv. slokdarmchirurgie)
- verminderde accommodatie fundus (bv na Nissen, bariatrische ingrepen)

Dieet voor dumping

- Dieet = hoeksteen behandeling (maar niet altijd voldoende)
- Dateren van voor "evidence based medicine" tijdperk: geen (nauwelijks klinische studies
- Basis: klinische ervaring, fysiopathologische concepten.

Dieet voor dumping

- Rationale:
  - verminderen vroege dumping: berust gedeeltelijk op hypertone voeding in jejunum (plus vasomotorische symptomen door gi hormonen)
  - verminderen laattijdige dumping (reactionele hypoglycemie)
- Beperkte klinische studies (short term) met guar en pectine: gunstig effect op volumeveranderingen en hypoglycemies
  (Leeds AR 1977-1981)

Dieet voor dumping

- Frequente (6), maar kleine maaltijden
- Vervangen snel resorbeerbare suikers door complexe koolhydraten
- Verminderen KH en verhogen eiwitten/vetten
- vermijden lactose
- Droge vaste maaltijden
- Vermijden drinken tijdens maaltijden
- Gaan liggen na maaltijden (vooral na vloeibare maaltijden)
- toevoegen oplosbare vezels (pectine, guar (bv 3 X 2.5-5 gr)
- extra Fe, foliumzuur, B12, Ca
- Cave B1 deficiëntie bij braken post-op

Ulcus, gastritis en complicaties (bloeding)

Met huidige therapieën: geen nut van dieetrestricties