

AMOS study

(Adolescent Morbidity Obesity Surgery)

- Inclusion 2006-2009
- Prospective controlled non-randomized
- Stockholm, Gothenburg, Malmö
- Surgery at Sahlgrenska, Gothenburg

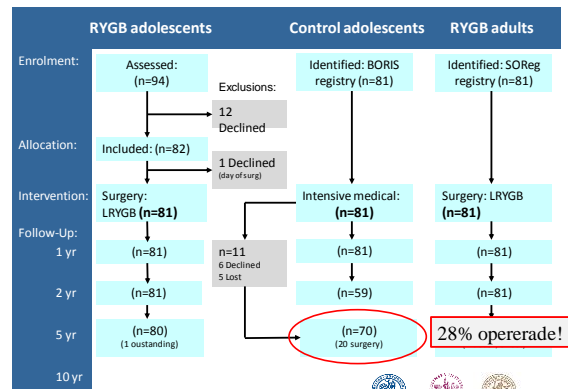
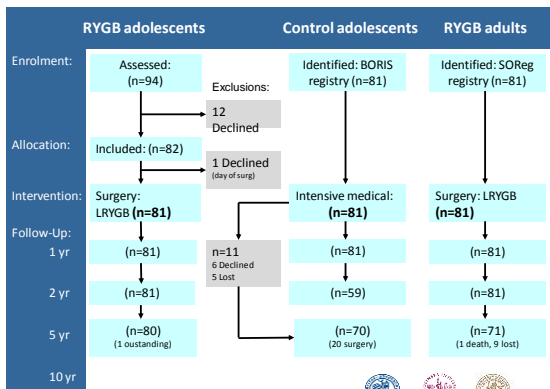


Inclusion criteria

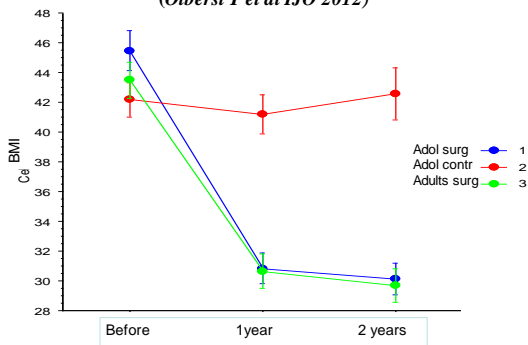
- 13-18 years age
- BMI >40 or >35 with co-morbidity
- Failure conservative treatment (>1 y)
- Tanner >3

Exclusion criteria

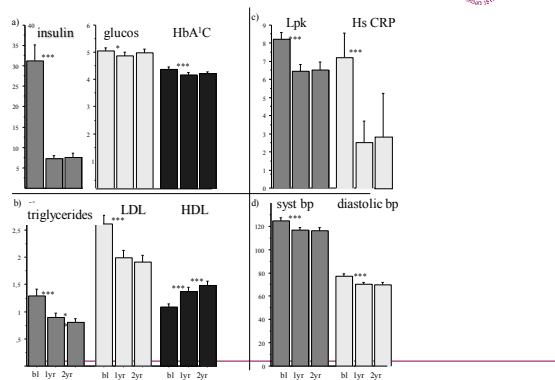
- Monogenic obesity
- Syndromal obesity
- Obesity secondary to brain injury
- Severe or uncontrolled psychiatric diseases



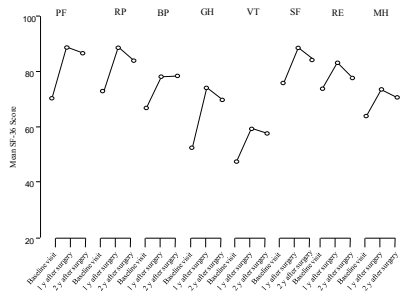
Two year results of Swedish GB study in 81 obese adolescents – the AMOS study (Olberst T et al IJO 2012)



Mean (95% CI) for major biochemical data in 81 adolescents operated with GBP at baseline, 1 and 2 years follow up

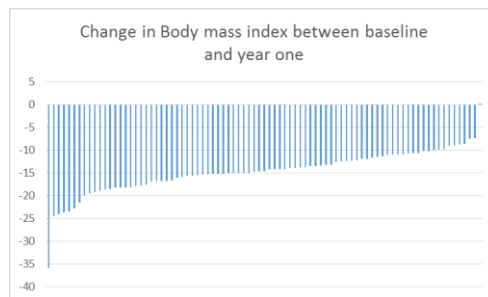


SF-36 QoL in 81 adolescents after gastric bypass



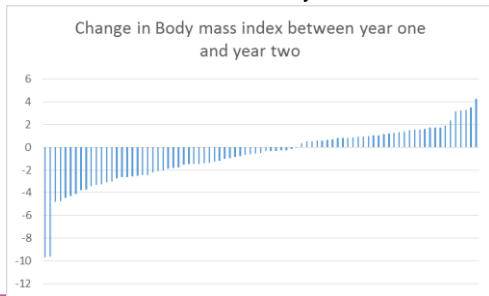
Estimated posturgery values are expected means from the linear mixed-effects models; a score of 0 represents worst possible health and 100 represents best possible health. PF = physical functioning; RP = role limitations due to physical health problems; BP = bodily pain; GH = general health perceptions; VT = vitality; SF = social functioning; RE = role limitations due to emotional problems; MH = general mental health; SF-36 = Short-Form-36 Health Survey.

Weight regain during the second year after surgery the AMOS study

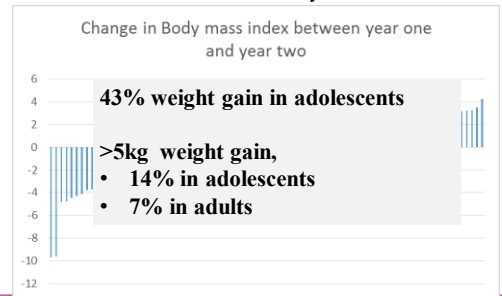




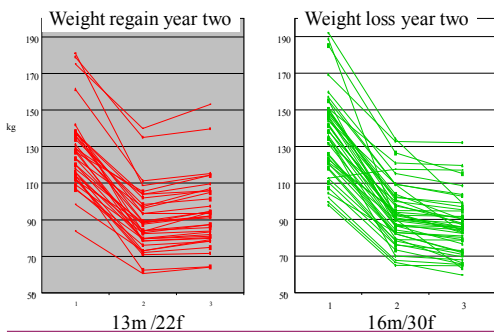
Weight regain during the second year after surgery
the AMOS study



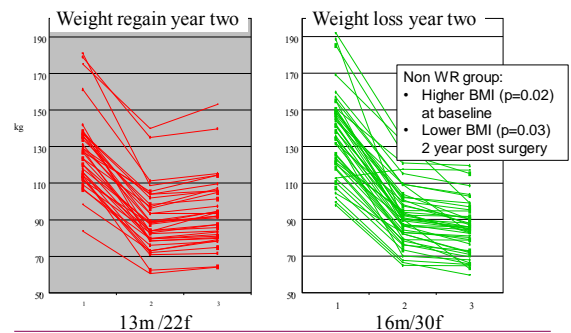
Weight regain during the second year after surgery
the AMOS study



WR was not associated with:
gender, initial weight loss or BMI

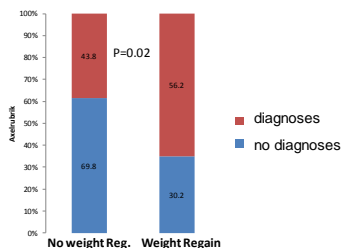


WR was not associated with:
gender, initial weight loss or BMI





Psychiatric and neuropsychiatric diagnoses at baseline



Metabolic consequences of weight regain after two years

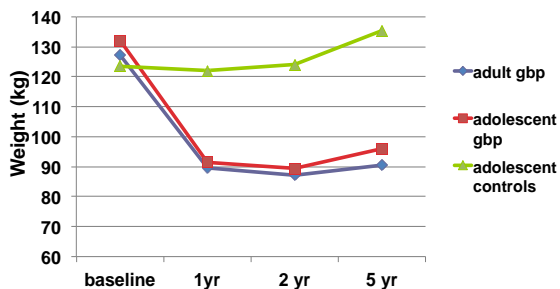
Kroppssammansättning (n=80):

- Non-WR förlorade mer fett (5,7kg) än WR (3,2kg, $p < 0.001$) 2 år efter operationen
- Non-WR hade lägre fett procent percentage (36,6%) än WR (42,5%) 2 år efter operationen

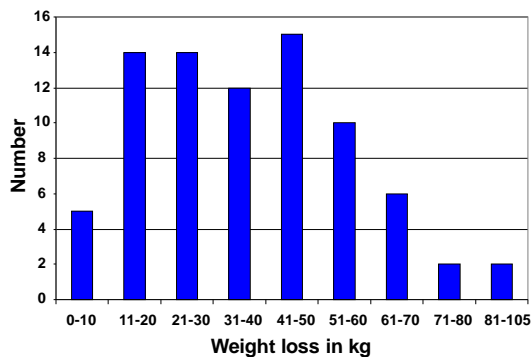
Insulinkänslighet (n=38):

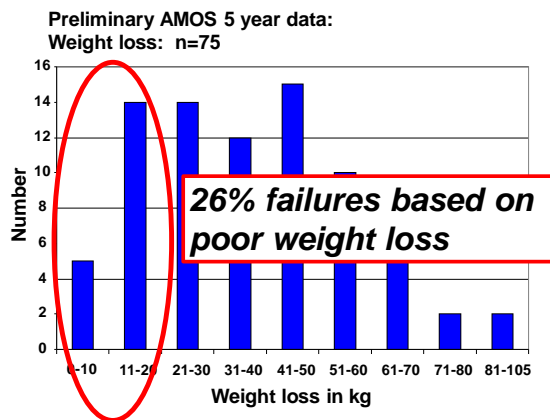
- Insulinkänsligheten ökade i non-WR gruppen och minskade i WR gruppen under andra året efter operationen
- Insulinkänsligheten var lägre i WR gruppen 2 år efter operationen ($p = 0,04$)

Weight change, baseline to 5 years, in AMOS, preliminary data



Preliminary AMOS 5 year data: Weight loss: n=75





Definitions of surgery failure

(Elhahas Al et al 2014)

- Total weight loss less than 20kg
- BMI >35 after surgery
- Weight loss less than 50% of initial excess weight



Obesity surgery among young Swedes

	2005	06	07	08	09	10
15-19år	8	26	45	50	58	57
20-24år	30	67	98	125	193	264

Neovius / Socialstyrelsen 2012-04-18

Bariatric surgery is now a treatment provided for selected patients from 16 years of age

Claude Marcus

Conclusions (1):

- Gastric Bypass förefaller nästan lika effektivt för ungdomar som för vuxna
- Behandlingen fungerar väl med måttliga biverkningar
- God viktnedgång för flertalet patienter
- Förbättrad metabol hälsa
- Trots kvarstående psykosociala problem har många en förbättrad livskvalitet

Conclusions (2):

- Fetmakirurgi är det bästa vi har
 - men inte tillräckligt bra!
- Bristande effekt av fetmakirurgi är vanligare bland tonåringar
 - 30-40% av tonåringarna har begränsad effekt av kirurgin (dålig viktnegång sekundär viktuppgång)
 - Sekundär viktuppgångar associerat med sänkt insulinkänslighet
 - Nya kombinationer av fetmakirurgi och beteendestöd behöver testas

Kan man förebygga sekundär viktuppgång med beteendestöd?

- Sambandet mellan psykosociala problem och sekundärviktuppgång tyder på att det inte är ett kirurgiskt/endokrint problem primärt
- Intensivt beteendestöd efter gastric banding kunde förebygga sekundär viktuppgång (Steffen R et al Obesity Surg 2009)
- KBT behandling av hetsätning förbättrade effekten av gastric bypass (Ashton K et al SOARD 2011)

Claude Marcus

Thank You!

Claude Marcus