(*nicht-AMG nicht-MPG*) Glp-1

Acronym	EudraCT	ISRCTN	NCT (clinicaltrials.gov)	DRKS	Internal ID
					2688

Physiological effect of Glp-1 receptor activation on reward and effort learning in obesity

PURPOSE / OBJECTIVES

Primary Outcome

(1) The first aim of this study is to determine whether prediction errors in reward learning are altered in obesity and if Glp-1 receptor activation affects this learning process as a possible mechanism contributing to reduced food intake under Glp-1 analogues in normal weight and obesity.

(2) On a behavioral level, the second aim of this study is to determine whether Glp-1 receptor activation alters the motivation to spend effort for food or monetary rewards in normal weight and obesity.

DIAGNOSIS

- Healthy Volunteers
- Obesity

TARGET POPULATION

Age

20-40

Inclusion criteria

1. Informed consent obtained
2. Non-smoker (for the last 1 year not smoked more than 2 cigarettes per month)
3. Stable body weight (less than 5% self-reported change within the last 3 months)

- Lean subjects with a BMI between 20-25 kg/m^2 (healthy weight range)
- Obese subjects with a BMI above 30 kg/m^2

Exclusion criteria

1. Serious or unstable medical illness (e.g., cancer). Past or current history of alcoholism or consistent drug use. Current and history of major psychiatric illness as defined by the DSM-IV criteria including eating disorders
2. Medications that affect alertness (e.g., barbiturates, benzodiazepines, chloral hydrate, haloperidol, lithium, carbamazepine, phenytoin, etc.) and any psychoactive drugs or anti-obesity agents
3. History of major head trauma with loss of consciousness
4. Pregnancy
5. Nursing women
6. Kidney insufficiency (Kreatinin- Clearance <30 ml/min)
7. Reduced liver functioning
8. History of quincke edema
9. Family or personal history of multiple endocrine neoplasia type 2 (MEN2) or familial medullary thyroid carcinoma (FMTC)
10. Personal history of non-familial medullary thyroid carcinoma
11. History of acute or chronic pancreatitis
12. Any known food allergy, certain food sensitivities (lactose); allergy towards active ingredient
13. History of metalworking, injury with shrapnel or metal slivers, and major surgery
14. History of pacemaker or neuro stimulator implantation
15. Dysphagia
16. Weight >150 kg

STUDY DESIGN

- Single center
- Prospective
- Single-blind
- Cross-over
- Placebo-controlled

INTERVENTION

One dose of 0.6 mg Liraglutid resp. placebo sc.

NETWORKS

- CECAD Cologne
- Translationale Plattform (CECAD)

RESPONSIBILITIES IN OVERALL STUDY

Clinical trial unit

- Max-Planck-Institut (MPI) für Stoffwechselforschung - Studienbüro

Sponsor

- Max-Planck-Institut (MPI) für Stoffwechselforschung

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