

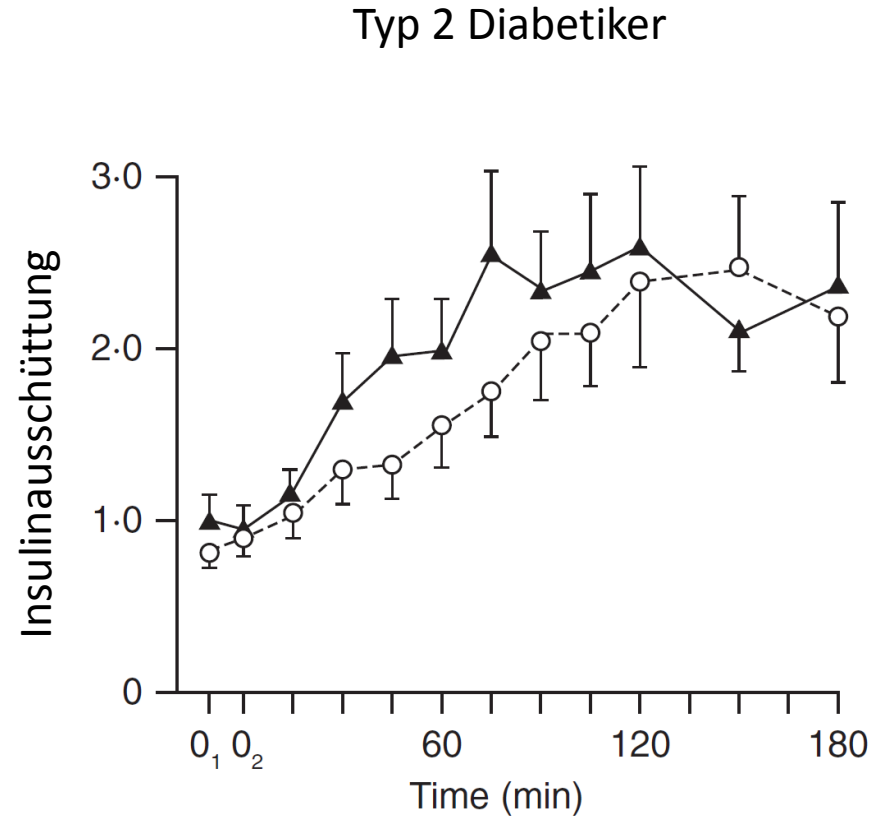
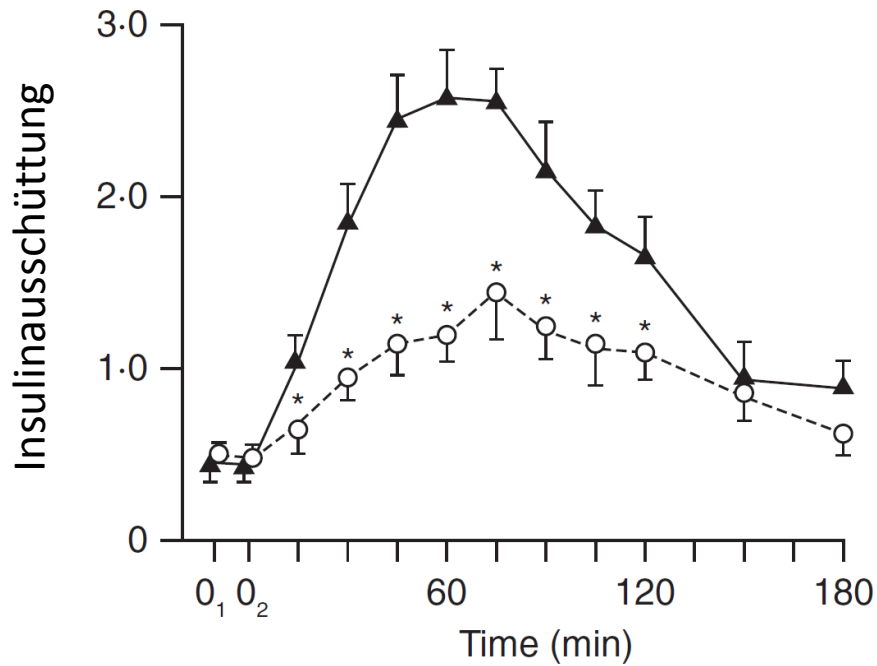
Inkretinmimetika, eine Bereicherung?

Dr. Johanna Brix

1. Medizinische Abteilung

Krankenanstalt Rudolfstiftung

Der Inkretineffekt - 1986



Heloderma suspectum

Gila Monster



Healthy eating, weight control, increased physical activity & diabetes education

Mono-therapy

Efficacy*
Hypo risk
Weight
Side effects
Costs

Metformin

high
low risk
neutral/loss
GI / lactic acidosis
low

If HbA1c target not achieved after ~3 months of monotherapy, proceed to 2-drug combination (order not meant to denote any specific preference – choice dependent on a variety of patient- & disease-specific factors):

Dual therapy[†]

Efficacy*
Hypo risk
Weight
Side effects
Costs

Metformin +	Metformin +	Metformin +	Metformin +	Metformin +	Metformin +
Sulfonylurea	Thiazolidinedione	DPP-4 inhibitor	SGLT2 inhibitor	GLP-1 receptor agonist	Insulin (basal)
high efficacy moderate risk weight gain hypoglycemia low costs	high efficacy low risk weight gain edema, HF, fxs low costs	intermediate efficacy low risk neutral weight rare side effects high costs	intermediate efficacy low risk weight loss GI, dehydration high costs	high efficacy low risk weight loss GI side effects high costs	highest efficacy high risk weight gain hypoglycemia variable costs

If HbA1c target not achieved after ~3 months of dual therapy, proceed to 3-drug combination (order not meant to denote any specific preference – choice dependent on a variety of patient- & disease-specific factors):

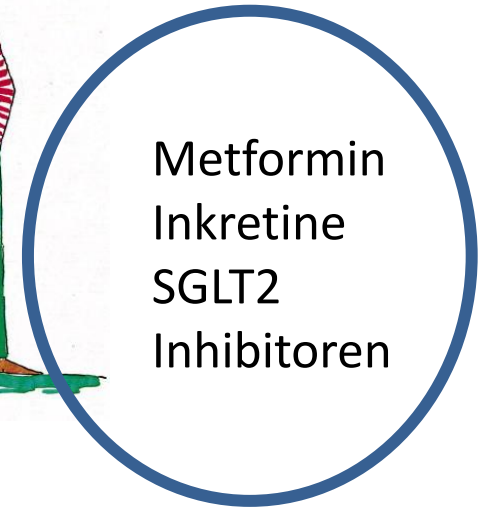
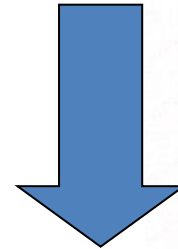
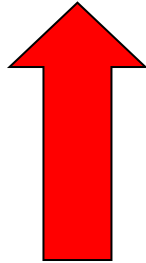
Triple therapy

Metformin +	Metformin +	Metformin +	Metformin +	Metformin +	Metformin +
Sulfonylurea	Thiazolidinedione	DPP-4 Inhibitor	SGLT-2 Inhibitor	GLP-1 receptor agonist	Insulin (basal)
+ TZD	+ SU	+ SU	+ SU	+ SU	+ TZD
or DPP-4-i	or DPP-4-i	or TZD	or TZD	or TZD	or DPP-4-i
or SGLT2-i	or SGLT2-i	or SGLT2-i	or DPP-4-i	or Insulin[§]	or SGLT2-i
or GLP-1-RA	or GLP-1-RA	or Insulin[§]	or Insulin[§]		or GLP-1-RA
or Insulin[§]	or Insulin[§]				

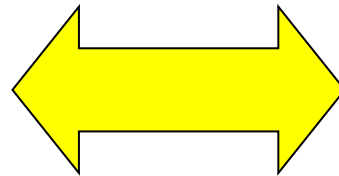
If HbA1c target not achieved after ~3 months of triple therapy and patient (1) on oral combination, move to injectables, (2) on GLP-1 RA, add basal insulin, or (3) on optimally titrated basal insulin, add GLP-1-RA or mealtime insulin. In refractory patients consider adding TZD or SGL T2-i:

Combination injectable therapy[‡]

Metformin +	Basal Insulin + Mealtime Insulin or GLP-1-RA
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Sulfonylharnstoffe
Glitazone
Insulin



α -Glukosidase-Hemmer
DPP-4 Inhibitoren

Antidiabetische Medikamente:
Effekte auf das Körpergewicht

Pankreas

↑ Insulinsekretion
(glucose-abhängig)
und Betazell-
sensitivität

↑ Insulinsynthese

↓ Glucagonsekretion
(glucose-abhängig)

↑ Betazellmasse*

*In animal studies



↓ **Hirn**
Energieaufnahme

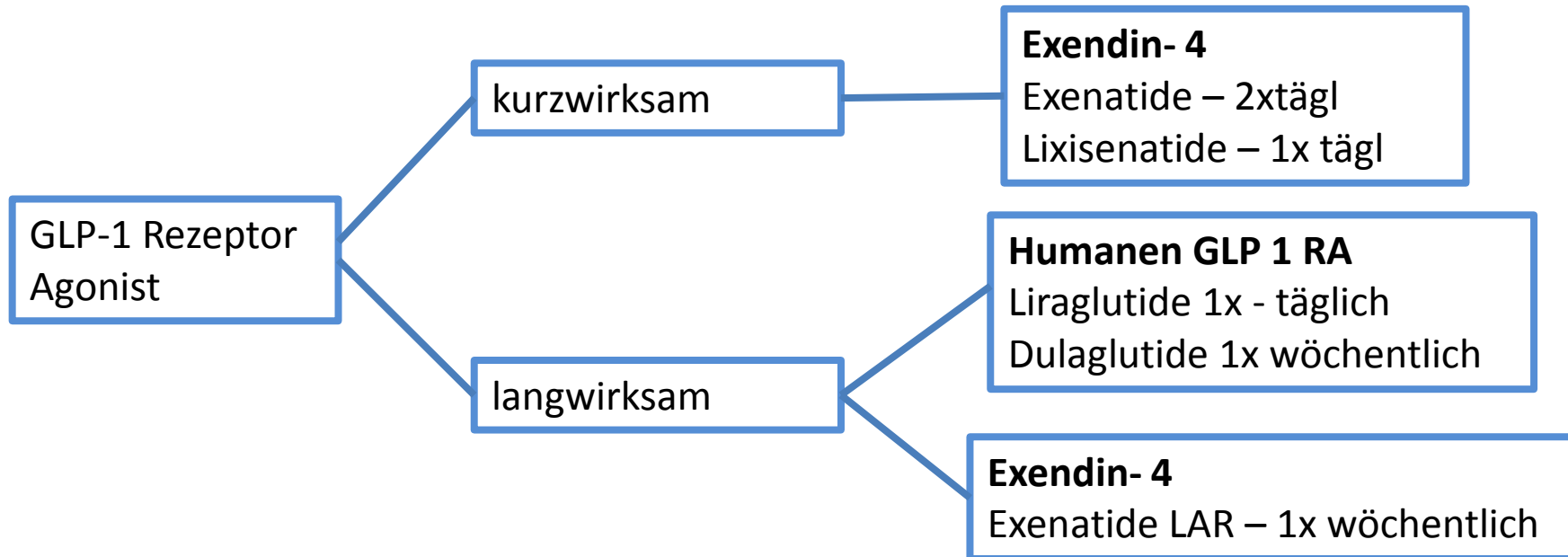
Herz
↑ Kardioprotektion
↑ kardiale Funktion

Leber
↓ Hepat Glukose
Ausschüttung

GI Trakt
↓ Motilität

GLP 1 Effekte auf den menschlichen Körper

Therapieoptionen



Lixisenatide

- 1x täglich zu spritzen
- Vorteil: hoher postprandialer Blutzucker
- Geringere Nebenwirkungsrate

Liraglutide

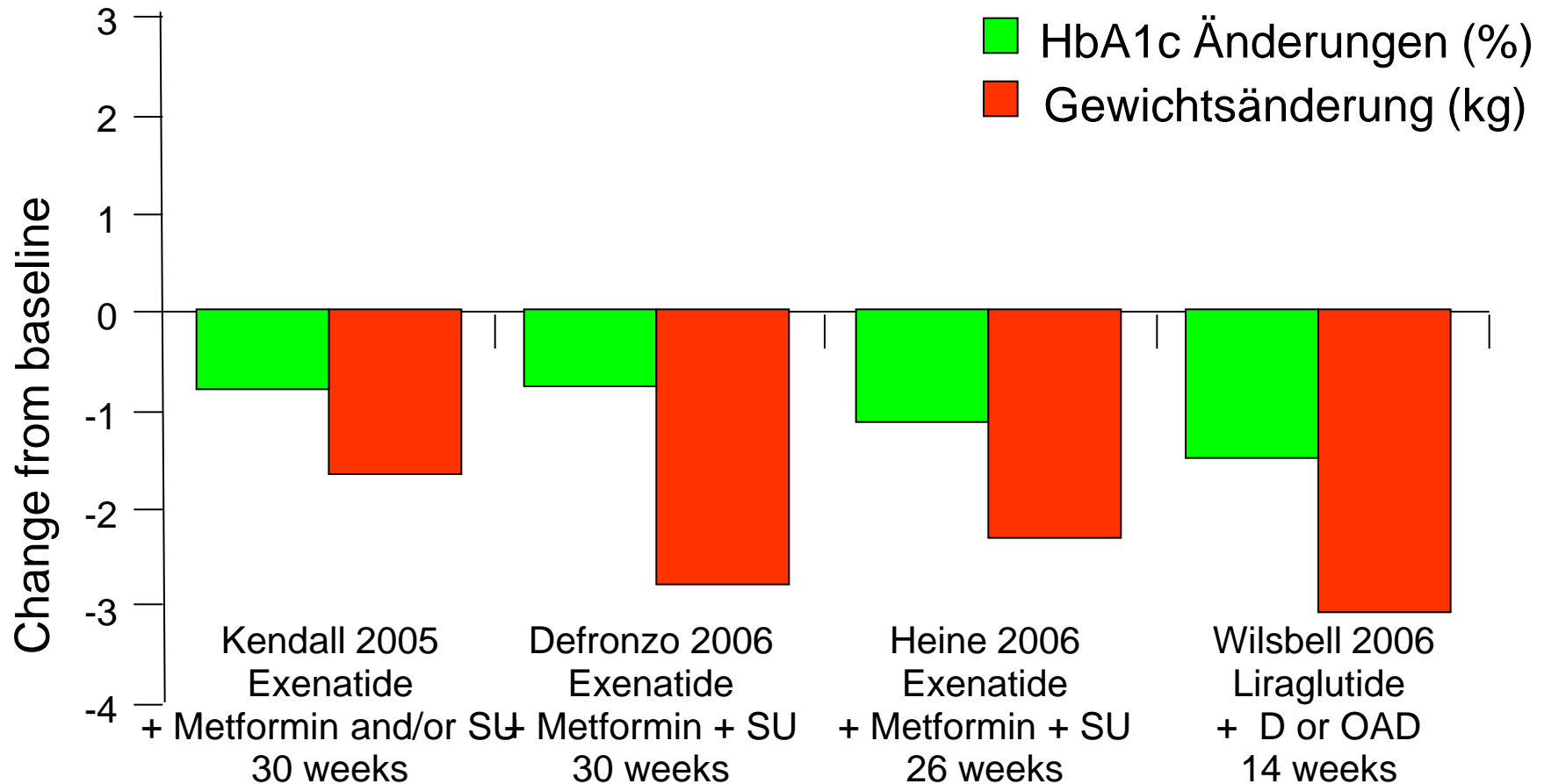
- 1x täglich zu spritzen
- Wirkt zusätzlich auch auf den Nüchternblutzucker
- Ist auch zugelassen mit einem Basalinsulin
- Fixkombination mit neuem Insulin

Dulaglutide

Exenatide -LAR

- 1x wöchentlich zu verabreichen
- Stabilere Wirkung
- Dulaglutide ist mit Insulin zugelassen
- Exenatide LAR – gelbe Box

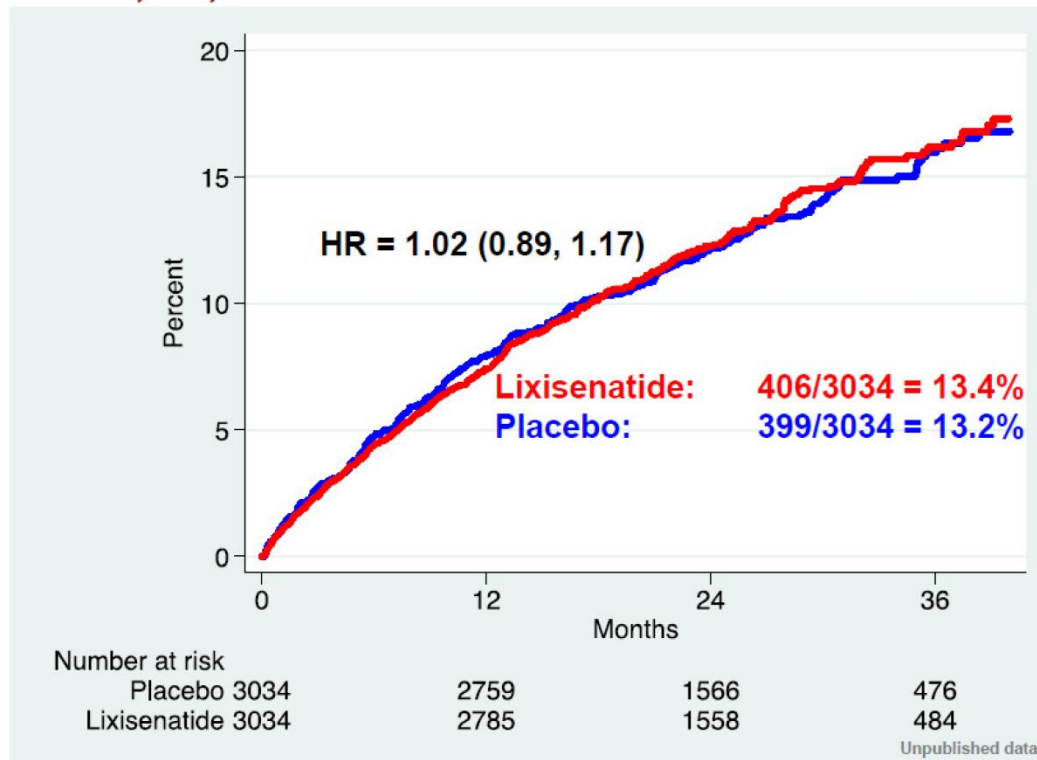
Gewicht- und HbA1c-Änderungen bei Behandlung mit GLP-I-Agonisten



SU: Sulfonylurea OAD: Oral Antidiabetic Drugs D: with Diet



Primary Outcome CV Death, MI, Stroke or UA



Erste positive Sicherheitsdaten....

Vielen Dank für Ihre Aufmerksamkeit!