

The effects of liraglutide on cardiometabolic parameters

한림대학교 강남성심병원 내과

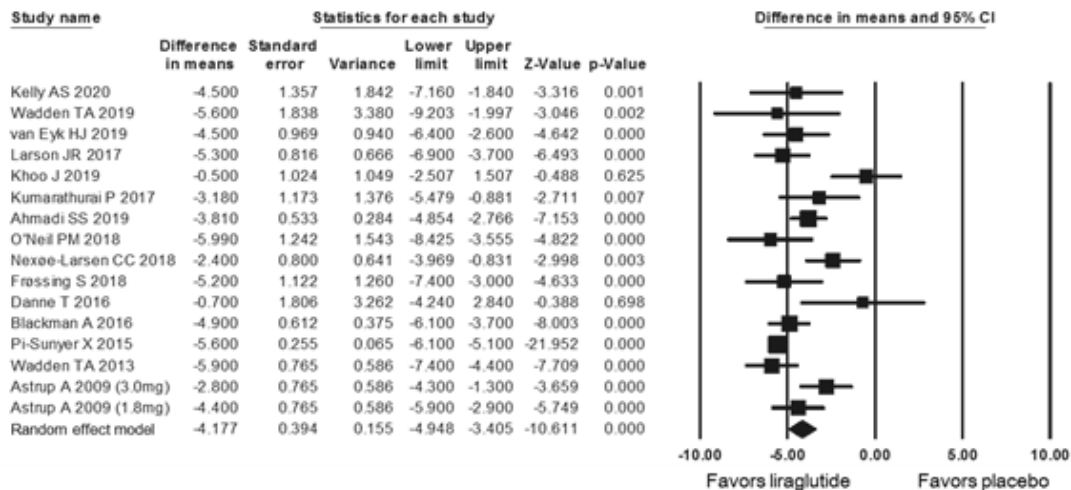
양호동, 문신제

Background/Aims: Obesity is a chronic disease associated with metabolic diseases such as diabetes and cardiovascular disease. Since the US Food and Drug Administration approved liraglutide, a glucagon-like peptide-1 receptor agonist, for use as an anti-obesity drug in patients without diabetes in 2014, it has been widely used for weight control in overweight and obese people. The aim of this study was to systemically analyze the effects of liraglutide on body weight and other cardiometabolic parameters.

Methods: We investigated articles from PubMed, EMBASE, and the Cochrane Library to find clinical trials and observational studies that examined body weight changes with liraglutide treatment.

Results: A total of 21 studies with 7251 participants were included for the meta-analysis. The mean difference (MD) between the liraglutide group and the placebo group using a random effect model was -4.18 kg (95% CI, -4.95 to -3.41), which indicates significantly more weight loss in the liraglutide group. Liraglutide treatment was associated with significantly reduced blood pressure, fasting blood glucose, hemoglobin A1c and LDL cholesterol.

Conclusions: liraglutide is an effective drug for weight control and can be a promising drug for cardiovascular protection in overweight and obese people.



Dosage of liraglutide	1.8mg/day		3.0mg/day	
	N	MD (95% CI, I ²)	N	MD (95% CI, I ²)
Blood pressure				
Systolic blood pressure	7	-2.97 (-4.48, -1.46, 0%)	11	-2.86 (-3.41, -2.32, 0%)
Diastolic blood pressure	7	-0.51 (-0.54, 0.52, 0%)	11	-0.75 (-1.14, -0.35, 0%)
Fasting blood glucose	5	-16.4 (-27.8, -5.0, 87%)	11	-6.6 (-9.6, -3.6, 98.4%)
HbA1c	7	-0.67 (-1.01, -0.34, 91.2%)	10	-0.27 (-0.36, -0.18, 93.3%)