

Trial Watch

Glucagon-like peptides type 1 receptor agonists (GLP-1 RAs) have been approved to lower glycaemia in patients with diabetes mellitus type II since 2005. Recently they have been reported as effective weight loss therapeutics in the general population.

This paper reports the finding from a small randomized clinical trial investigating whether a GLP-1 RA would improve transcutaneous peripheral perfusion (T_{cp}O₂) in the lower limbs of diabetics with peripheral artery disease.

Liraglutide for Lower Limb Perfusion in People With Type 2 Diabetes and Peripheral Artery Disease: The STARDUST Randomized Clinical Trial

clinicaltrials.gov identifier

NCT04881110

Population :

European	n = 27	
HbA1c	6.9%	(+/- 0.4%)
T _{cp} O ₂	40mm Hg	(+/- 5.7%).
Male	78 %	
Age	68	(+/- 8 years)

Intervention : 1.8mg liraglutide (Saxenda) q.d. followed for 6 months.

Control : Conventional care n=28

Outcomes : Improvement of peripheral perfusion between groups
Magnitude of increase between the groups

Results

Both intervention and control arms showed an increase in peripheral transcutaneous oxygen pressure T_{cp}O₂ over the followup period.

With the liraglutide intervention group, 24 of 27 (89%) achieved greater than 10% increase in T_{cp}O₂ whilst the controls reported 13 of 28 (46%) (p<= 0.001). This was sufficient to cross the hypoxia threshold in the affected tissues in some cases. Statistically significant improvements were also noted in CRP levels, the urinary ACR and a six minute walking test.

Summary

A small trial (n=55) with short term follow up showed that liraglutide may be useful in controlling peripheral artery disease in diabetes mellitus type II patients.

Paper Caruso et al (2024) JAMA Netw Open Mar 4;7(3)

<https://pubmed.ncbi.nlm.nih.gov/38470420/>