522-P - Renal Outcomes in the EXenatide Study of Cardiovascular Event Lowering (EXSCEL)

Category: 03-B Complications–Nephropathy–Clinical and Translational Research

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Body

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Background: EXSCEL was a multinational, randomized, blinded, placebo-controlled, pragmatic CV outcome trial of once-weekly exenatide on the background of usual care. We report exenatide's impact on estimated glomerular filtration rate (eGFR), new macroalbuminuria and 2 renal composites from a prespecified analysis plan.

Methods: Opportunistic local laboratory data were collected. Overall least squares mean difference (LSMD) eGFR (95% confidence interval [95% CI]) was calculated for 13844 patients with baseline and ≥1 follow-up value. Effect on new macroalbuminuria was estimated with a Cox regression model. Effects on renal composites were estimated with interval censored time to event models, with and without covariate adjustment (demographics and disease characteristics).

Results: Intention-to-treat analyses showed no significant difference in eGFR levels with exenatide (LSMD +0.21 [-0.27, 0.70] mL/min.1.73m^2, p=0.39). New macroalbuminuria occurred in 2.2% and 2.5% of the exenatide and placebo groups (p=0.19). There was a 15% lower renal composite 2 adjusted risk with exenatide (p=0.027) (Table).

Conclusions: A composite of 40% eGFR decline, renal replacement, renal death or new macroalbuminuria was significantly reduced in an adjusted analysis by the addition of exenatide in a broad range of people with type 2 diabetes. Other renal outcomes were numerically but not statistically improved with exenatide.

Table.

	Exenatide		Placebo			
	# with event, n/N (%)	Incidence/ 100 pyr	# with event, n/N (%)	Incidence/ 100 pyr	HR (95% CI)	p
Renal composite 1	246/6456 (3.8%)	1.2	273/6458 (4.2%)	1.4	0.88 (0.74, 1.05)	0.164
*Adjusted HR**					0.87 (0.73, 1.04)	0.128
40% eGFR decline	239		266			
Renal replacement	7		7			
Renal death	0		0			
Renal composite 2	366/6256 (5.8%)	1.9	407/6222 (6.5%)	2.2	0.88 (0.76, 1.01)	0.065
*Adjusted HR**					0.85 (0.73, 0.98)	0.027
40% eGFR decline	216		228			
Renal replacement	7		6			
Renal death	0		0			
New macroalbuminuria	143		173			
*Adjusted for age, sex, ethnicity, race, region, duration of diabetes, prior history of CV event, insulin use, baseline HbA1c, eGFR, and BMI.						

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Disclosures: **M. Bethel:** Advisory Panel; Self; AstraZeneca, Boehringer Ingelheim Pharmaceuticals, Inc.. Consultant; Self; Novo Nordisk Inc., Theracos, Inc.. Other Relationship; Self; Sanofi. Research Support; Self; AstraZeneca, GlaxoSmithKline plc., Merck Serono, Merck Sharp & Dohme Corp. **R.J. Mentz:** Research Support; Self; AstraZeneca, GlaxoSmithKline plc., Merck & Co., Inc.. **P. Merrill:** None. **J.B. Buse:** Other Relationship; Self; ADOCIA, American Diabetes Association, AstraZeneca, Dexcom, Inc., Elcelyx Therapeutics, Inc., Eli Lilly and Company, Fractyl Laboratories, Inc., Intarcia Therapeutics, Inc., Lexicon Pharmaceuticals, Inc., Metavention, National Institute of Diabetes and Digestive and Kidney Diseases, National Institute of Environmental Health Sciences, NovaTarg, Novo Nordisk A/S, Sanofi, Shenzhen Hightide Biopharmaceutical, Ltd., VTV Therapeutics. Research Support; Self; Boehringer Ingelheim GmbH, Johnson & Johnson Services, Inc., National Center for Advancing Translational Sciences, National Heart, Lung, and Blood Institute, Patient-Centered Outcomes Research Institute, Theracos, Inc. **J.C. Chan:** Board Member; Self; Asia Diabetes Foundation. Consultant; Self; AstraZeneca, Bayer AG, Boehringer Ingelheim Pharmaceuticals, Inc., Eli Lilly and Company, Merck & Co., Inc., Novartis AG, Pfizer Inc., Sanofi. Other Relationship; Self; Amgen Inc., Bayer AG, Eli Lilly and Company, Merck Sharp & Dohme Corp., Pfizer Inc., Sanofi. Stock/Shareholder; Self; GemVCare. **S.G. Goodman:** Consultant; Self; Amgen Inc., AstraZeneca, Bayer AG, Boehringer Ingelheim Pharmaceuticals, Inc., Bristol-Myers Squibb Company, Eli Lilly and Company, Merck & Co., Inc., Novartis Pharmaceuticals Corporation, Pfizer Inc., Regeneron Pharmaceuticals, Inc., Sanofi. Research Support; Self; Amgen Inc., AstraZeneca, Bayer AG, Boehringer Ingelheim Pharmaceuticals, Inc., Bristol-Myers Squibb Company, CSL Behring, Eli Lilly and Company, GlaxoSmithKline plc., Pfizer Inc., Regeneron Pharmaceuticals, Inc., Sanofi. **N. Iqbal:** Employee; Self; AstraZeneca. **N. Jakuboniene:** None. **B.G. Katona:** Employee; Self; AstraZeneca. **Y. Lokhnygina:** None. **R.D. Lopes:** Consultant; Self; Bayer AG, Boehringer Ingelheim GmbH, Daiichi Sankyo Company, Limited, Merck & Co., Inc.. Other Relationship; Self; Bristol-Myers Squibb Company, GlaxoSmithKline plc., Medtronic, Pfizer Inc.. **A.P. Maggioni:** None. **P.K. Ohman:** Employee; Self; AstraZeneca. **N.R. Poulter:** Advisory Panel; Self; Amgen Inc., AstraZeneca, Novo Nordisk A/S. Other Relationship; Self; International Society of Hypertension. Research Support; Self; Servier. Speaker's Bureau; Self; Amgen Inc., AstraZeneca, Novo Nordisk A/S, Servier. **A. Ramachandran:** None. **T. Tankova:** None. **B. Zinman:** Consultant; Self; Abbott, AstraZeneca, Boehringer Ingelheim Pharmaceuticals, Inc., Eli Lilly and Company, Janssen Pharmaceuticals, Inc., Merck & Co., Inc., Novo Nordisk A/S, Sanofi. **A.F. Hernandez:** Consultant; Self; Bayer AG, Boehringer Ingelheim Pharmaceuticals, Inc.. Research Support; Self; AstraZeneca, GlaxoSmithKline plc., Janssen Pharmaceuticals, Inc., Merck & Co., Inc., Novartis Pharmaceuticals Corporation. **R.R. Holman:** Advisory Panel; Self; Elcelyx Therapeutics, Inc., Merck & Co., Inc., Novartis AG, Novo Nordisk A/S. Other Relationship; Self; AstraZeneca, Bayer AG. Research Support; Self; AstraZeneca, Bayer AG, Merck & Co., Inc..

Sessions

Saturday General Poster Session
Saturday, Jun 23 11:30 AM
Poster Hall
(/tristar_ada18/event/9697798b3027fa630b3c8f2ea06ada23)

Clinical and Translational Studies in Diabetic Kidney Disease
Monday, Jun 25 12:00 PM
Poster Hall (First poster in discussion)
(/tristar_ada18/event/e672162a5c5996b29fca5e5e0359e39a)