

Symposium 17

Incretin Therapy from MARS,
Bariatric Surgery from VENUS

Chairpersons

Sung Rae Kim

The Catholic University of Korea, Korea

Jae Hyun Kim

Seoul National University, Korea

Speakers

Mi-Kyung Kim

Keimyung University, Korea

Po-Chih Chang

National Sun Yat-Sen University, Taiwan

Barbara McGowan

Guy's and St Thomas' NHS Foundation Trust, UK

Panel Discussion

Kyung-Soo Kim

CHA University, Korea

Jun Sung Moon

Yeungnam University, Korea



Mi-Kyung Kim

Keimyung University, Korea

• Education

Period	Affiliation	Position
– 2006-2008	Keimyung University Graduate School	Ph.D.
– 2004-2006	Keimyung University Graduate School	M.S.
– 1996-2002	Keimyung University School of Medicine	M.D.

• Affiliations / Experience

Period	Affiliation	Position
– 2024-Present	Keimyung University School of Medicine	Professor
– 2018-2023	Keimyung University School of Medicine	Associate Professor
– 2016-2017	Sanford Burnham Prebys Medical Discovery Institute	Visiting Researcher
– 2011-2018	Keimyung University School of Medicine	Assistant Professor

• Committee Memberships

- Korean diabetes Association
- Korean Endocrine Society
- Korean Society for the Society of Obesity
- The Korean Association of Internal Medicine

• Publications

- Diabetic Kidney Disease Fact Sheet in Korea. Kim NH, Seo MH, Jung JH, Han KD, Kim MK, Kim NH; Diabetic Kidney Disease Research Group of the Korean Diabetes Association. *Diabetes Metab J*
- Strategies to Maintain the Remission of Diabetes Following Metabolic Surgery. Kim MK, Kim HS. *J Metab Bariatr Surg. Dec;12(2): 26-34*
- Lobeglitazone inhibits LPS-induced NLRP3 inflammasome activation and inflammation in the liver. Seo HY, Lee SH, Park JY, Han E, Han S, Hwang JS, Kim MK*, Jang BK*. *PLoS One. 24;18(8):e0290532*
- Muscle fat contents rather than muscle mass determines nonalcoholic steatohepatitis and liver fibrosis in patients with severe obesity. Han E, Kim MK*, Lee HW, Ryu S, Kim HS, Jang BK, Suh Y. *Obesity (Silver Spring). 30(12):2440-2449*
- Evogliptin Directly Inhibits Inflammatory and Fibrotic Signaling in Isolated Liver Cells. Seo HY, Lee SH, Han E, Hwang JS, Han S, Kim MK*, Jang BK*. *Int J Mol Sci. 23(19):11636*

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Incretin-Based Therapy Before Bariatric Surgery: Will It Be Helpful?

Mi-Kyung Kim (Keimyung University, Korea)

Obesity is increasing globally, resulting in obesity-related diseases. Guidelines recommend losing 5%–10% of body weight within 6 months after starting treatment as the primary weight loss goal through lifestyle modification, pharmacotherapy, or bariatric surgery to reduce obesity-related disease. Current anti-obesity medications expect about 5- 15% weight loss, especially recently released incretin-based drugs with effective weight loss. However, the most effective treatment for obesity is bariatric surgery, which is durable, with the majority of patients maintaining a large percentage of their initial weight loss over the first postoperative decade. Successful outcomes, preoperative evaluation, and management of modifiable risk factors are recommended to reduce the risk of perioperative complications and improve outcomes. The impact of preoperative medical weight management is inconsistent. Some reported potential advantages such as shorter operative time, length of stay, and more significant postoperative weight loss; others reported discouraging for patients and possibly unnecessary delay of necessary treatment. A recent position statement recommends that the inability to lose weight with a preoperative diet should be precluded from bariatric surgery. However, while people wait for surgery, they need preoperative management about weight or glucose. If people have diabetes, we should choose anti-glycemic management, which has high efficacy in weight loss. Therefore, I will talk about whether incretin-based therapy before surgery will be helpful.



Po-Chih Chang

National Sun Yat-Sen University, Taiwan

• Education

Period	Affiliation	Position
– 2017-Present	Biomedical Engineering, Kaohsiung Medical University	Ph.D.
– 2015-2017	Department of Sports Medicine, Kaohsiung Medical University	M.Sc.
– 1994-2001	School of Medicine, Kaohsiung Medical University	M.D.

• Affiliations / Experience

Period	Affiliation	Position
– 2024-Present	School of Medicine, College of Medic, National Sun Yat-sen University	Associate Professor
– 2016-Present	Div. of Thoracic Surgery, Kaohsiung Medical University Hospital	Visiting Staff
– 2016-Present	Weight Management Center, Kaohsiung Medical University Hospital	Visiting Staff
– 2018-2024	Div. of Thoracic Surgery, Kaohsiung Medical University Hospital	Chief
– 2018-2024	College of Medicine, Kaohsiung Medical University	Clinical Assistant Professor

• Committee Memberships

- Taiwan Society for Metabolic And Bariatric Surgery (TSMBS)
- Taiwan Society of Thoracic Surgeons (TSTS)

• Publications

- Perioperative Dexmedetomidine Infusion Improves Perioperative Care of Bariatric-Metabolic Surgery: A Single Center Experience with Meta-Analysis. Chang PC, Huang IY, Liu SD, Huang CK, Lin TE, Jhou HJ, Chen PH, Chang TW. *Obes Surg.* 2024 Feb;34(2):416-428
- Dexamethasone and Dexmedetomidine: A Synergistic Approach to Reduce Postoperative Nausea and Vomiting in Bariatric Surgery Patients. Chang PC, Huang YW, Huang CK, Chang TW. *Obes Surg.* 2024 Jun;34(6):2253-2254
- Innovative Endoscopic Approach for Staple Line Leaks Following Sleeve Gastrectomy: Promising Outcomes with Considerable Concerns. Chang TW, Huang YW, Huang CK, Chang PC. *Obes Surg.* 2024 Mar;34(3):1029-1030
- Exploring the Need for Sustained GLP-1 Agonist Therapy: a Perspective on Weight Regain After Bariatric Surgery. Chang PC, Huang YW, Huang CK, Chang TW. *Obes Surg.* 2024 Jun;34(6):2259-2260
- Wernicke Encephalopathy After Roux-en-Y Gastric Bypass Presenting with Altered Mental Status-A Video Case Report. Chen CC, Chang PC, Chang TW, Chuang HY. *Obes Surg.* 2024 Jun;34(6):2271-2273

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Incretin-Based Therapy after Bariatric-Metabolic Surgery: When and How Long?

Po-Chih Chang (National Sun Yat-Sen University, Taiwan)

Incretin-based therapies, including GLP-1 receptor agonists and DPP-4 inhibitors, have gained prominence in the management of type 2 diabetes mellitus (T2DM) due to their efficacy in enhancing insulin secretion and suppressing glucagon release. Post-bariatric-metabolic surgery, these therapies hold potential for optimizing glycemic control and improving metabolic outcomes, including augmenting weight loss for those with insufficient weight loss or weight recidivism. This review discusses the indications, timing, and duration of incretin-based therapy following bariatric-metabolic procedures. It highlights the heterogeneity of patient responses to surgery and the necessity for personalized treatment plans. We also emphasize the importance of initiating incretin-based therapy in patients with suboptimal glycemic control post-surgery and suggests a tailored approach to therapy duration, balancing benefits against potential risks. Moreover, we will share the results of online survey of perspectives regarding using incretin-based therapy after bariatric-metabolic surgery among current bariatric-metabolic surgeons in Taiwan.



Barbara McGowan

Guy's and St Thomas' NHS Foundation Trust, UK

• Education

Period	Affiliation	Position
– 2003-2007	Imperial London	Ph.D.
– 1993-1998	Royal Free Hospital London	M.B.B.S.
– 1984-1988	Oxford University	B.A.

• Affiliations / Experience

Period	Affiliation	Position
– 2009-2024	Guys & St Thomas's Hospital	Professor of Endocrinology and Diabetes

• Committee Memberships

- International Society for Endocrinology
- EASO Obesity Management Task Force
- ESE Policy and Advocacy Task Force

• Publications

- Once-weekly Semaglutide in Adults with Overweight or Obesity, Wilding, McGowan *et al*, 384:989-1002 DOI: 10.1056/nejmoa2032183
- Liraglutide 3.0 mg in the treatment of adults with obesity and prediabetes using real-world UK data: A clinical evaluation of a multi-ethnic population. Dobbie *et al*, McGowan, *Clinical Obesity*
- Effectiveness of integrating a pragmatic pathway for prescribing liraglutide 3.0 mg in weight management services (STRIVE study): a multicentre, open-label, parallel-group, randomized controlled trial Papamargaritis, McGowan *et al*, *Lancet Regional Health* <https://doi.org/10.1016/j.lanpe.100853>
- (Laparoscopic adjustable gastric banding with liraglutide in adults with obesity and type 2 diabetes (GLIDE): a pilot randomised placebo controlled trial C. Coelho, L. Dobbie *et al*, B McGowan. *Int J Obesity*, doi: 10.1038/s41366-023-01368-4
- Real world data of a digitally enabled, time restricted eating weight management program in public sector workers living with overweight and obesity in the UK, A. Brown, *et al*, McGowan. *Obesity Science and practice* 10 (1), e730 DOI: 10.1002/osp4.730

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Incretin-Based Therapy - Will It Be Better Than Bariatric Surgery Alone

Barbara McGowan (Guy's and St Thomas' NHS Foundation Trust, UK)

Bariatric Surgery generally results in more substantial and rapid weight loss compared to pharmacotherapy for weight loss. Studies indicate an average weight loss of 25-30% of total body weight, which is often maintained long-term.

Incretin Therapy can achieve significant weight loss, typically around 10-15% of total body weight. However, new incretin therapies including GLP-1/GIP agonists and triple GLP-1/GIP/glucagon agonists can achieve around 20-25% weight loss, matching outcomes achievable following bariatric surgery.

Pharmacotherapy for weight loss needs to be taken long-term for weight maintenance. Weight loss after bariatric surgery is usually maintained over a period of 20 years and beyond. However, over 25% of patients will regain weight post-bariatric surgery. There is evidence indicating that additional incretin therapy post-bariatric surgery can achieve further weight loss in those with sub-optimal responses and achieve further improvements in glycemic control in patients with Type 2 diabetes.

This lecture will discuss the evidence for bariatric surgery vs incretin therapy and results of combination therapies post-bariatric surgery. Ultimately, the decision between incretin therapy and bariatric surgery should be individualized, considering the patient's specific medical conditions, preferences, and risk tolerance. For some patients, incretin therapy might offer a safer, less invasive option with significant benefits, though perhaps not as dramatic as bariatric surgery. For others, especially those with severe obesity and comorbidities, bariatric surgery may provide more rapid and extensive improvements in weight and metabolic health.

Combining therapies or using incretin therapy as a bridge to surgery could also be potential strategies to maximize benefits. Ongoing research and longer-term studies will further clarify the comparative advantages and optimal uses of these treatments.