EXCLUSIVE INTERVIEW SERIES

An Interview with

PROF. FRANCESCO RUBINO, MD
Chair, Bariatric and Metabolic Surgery, King's College London
London, United Kingdom

On September 28, 2015, London will host two seminal events: The 3rd World Congress on Interventional Therapies for Type 2 Diabetes and the 2nd Diabetes Surgery Summit.

Leading up to this event, Bariatric Times will feature interviews with members of the event's leadership team—experts diabetes care and research. This month, we feature an interview with Dr. Francesco Rubino, Director of the 3rd World Congress on Interventional Therapies for Type 2 Diabetes and Co-director of the 2nd Diabetes Surgery Summit. Here, he provides a brief history of both events, their joint goals, and the current landscape and future of an emerging field called "diabetes surgery."

A Defining Event for Diabetes Surgery

3rd World Congress on Interventional Therapies for Type 2 Diabetes and the 2nd Diabetes Surgery Summit

September 28–30, 2015, London, United Kingdom, Westminster Park Plaza Hotel

Bariatric Times. 2015;12(5):16–18.

Please provide a brief history of the World Congress on Interventional Therapies for Type 2 Diabetes.

Dr. Rubino: The World Congress on Interventional Therapies for Type 2 Diabetes (WCITT2D) was established to address the challenges and seize the opportunities that surgery offers to diabetes care and research. It is an international forum where a stellar faculty of clinicians, scientists, and policy makers discuss available evidence on the use and study of bariatric/metabolic surgery and new device-based intervention. The overarching aim of the congress is to craft an agenda of research priorities and health policy initiatives.

The previous two editions of the world congress, held in New York, New York, in 2008 and 2011, attracted participants from nearly 65 countries, establishing this meeting as the most prestigious multidisciplinary gathering entirely dedicated to the emerging field of diabetes surgery.

The World Congress is different from other meetings. Importantly, this is not a specialized surgical conference nor an endocrinology conference, but rather the only forum in the world that brings together physicians, surgeons, basic scientists, industry leaders, and policy makers. We will also represent the perspective of patients. It is a meeting for all diabetes stakeholders.

In fact, in 2011, the World Congress was chosen by the International Diabetes Federation (IDF) as the stage from which they announced the IDF position statement on bariatric surgery for diabetes.

The Diabetes Surgery Summit (DSS). This year, the world congress will be jointly held with the 2nd Diabetes Surgery Summit (DSS) in London. The first edition of the DSS was organized in Rome, Italy in 2007. It was the first meeting to use the term, "diabetes surgery" and is widely regarded as the event that paved the way to the advent of "metabolic surgery." It generated the very first recommendations that supported the idea that one can perform surgery for T2DM.

The DSS-II is a consensus conference organized in partnership with the American Diabetes Association (ADA), the European Association for the Study of Diabetes (EASD), Diabetes UK, the International Diabetes Federation (IDF). A multidisciplinary expert panel including leading endocrinologists, surgeons, cardiologists, nutritionists, and official representatives of diabetes societies will develop evidence-based guidelines and recommendations for the integration of surgery in the treatment algorithm of type 2 diabetes.

How has the field changed since the last WCITT2D and DSS?

Dr. Rubino: Research over the last decade has demonstrated that the gastrointestinal tract is a key organ-system for the regulation of glucose metabolism. The importance of this knowledge cannot be overemphasized as it provides the biological rationale for the use of surgery as a treatment for diabetes and. In fact, in 1999, when my mentor, Dr Gagner, and I submitted a proposal for a randomized clinical trial (RCT) to compare surgery and medical treatment for T2DM, the institutional review board (IRB) of the hospital did not accept our protocol. Surgery as a diabetes treatment was simply inconceivable even for an investigational study. The emerging evidence of the role of the gut in glucose metabolism makes it clear why operating on the stomach or intestine can be a rational approach for the treatment of diabetes. Since the last World Congress and DSS, RCTs and other important clinical studies[1] have been published and there is now definitive evidence that surgery is not only a safe and effective option for diabetes, but also better than conventional medical treatment in many patients.[2,3]

Despite such evidence, surgery remains largely underutilized, even when patients who meet existing criteria for surgical treatment. In fact, surgery is not considered in existing treatment algorithms of T2DM. This is the most important problem the new DSS and World Congress will try to address.

Why does bariatric/metabolic surgery remains underutilized despite all supporting evidence?

Dr. Rubino: The stigma of obesity still acts as a barrier for the acceptance of obesity treatments of any type, including bariatric surgery. Bariatric surgery continues to be considered too risky or too expensive no matter what evidence is there to support it. We will not be able to address barriers to bariatric surgery without addressing the cultural and social determinants that are behind the stigma of obesity and the discrimination of obese individuals.

When it comes to considering surgery as a treatment for diabetes, however, I believe that there are additional reasons to explain the underutilization of surgery. One of the fundamental barriers, in my opinion, is the fact that too many

continue to look at metabolic surgery as an expansion of the indications of bariatric surgery, not as a diabetes intervention per se. It might seem a matter of semantics, but in reality, this is a fundamental issue and it acts as a barrier for surgical referral. For instance, when physicians evaluate patients who seek treatment for severe obesity, the presence of diabetes may now be recognized as a reason that strengthens the indication to surgery. However, when a patient is being assessed for his or her diabetes, surgery still does not come to mind as an option, regardless of how obese he or she may be. One recent episode provides a plastic example: In the UK, the National Institute for Clinical Excellence (NICE), which establishes evidence-based guidelines for medicine and surgery, recently issued a visionary statement recommending to lower body mass index (BMI) threshold to 30kg/m^2 when considering bariatric surgery in patients with T2DM. However, when few weeks later the same agency announced new diabetes guidelines, their draft proposal (established by a separate committee of diabetes specialist) made no mention of surgery for any BMI level!

Although diabetes and obesity are often associated, they are distinct diseases that are usually treated by different specialists. Bariatric surgery guidelines speak to weight loss surgeons, at best to obesity medicine specialists, and dietitians. Most diabetic patients, however, are seen and treated by primary care physicians or diabetes specialists; they still need to be informed that surgery is an evidence-based treatment option for diabetes in 2015. This can only be done through new diabetes guidelines that recognize all available options. Coherent with the intent to treat diabetes, however, we also need to recognize that the current model of care of bariatric surgery, focused on weight, is not consistent with the standards of diabetes care. New guidelines should also inform surgeons about diabetes-specific methods of preoperative workup and postoperative follow up. That is exactly what the DSS-II is set to achieve, in partnership with the world leading diabetes organizations.

What are the specific goals of the 3rd WCITT2D and the DSS-II? How are they similar? How are they different?

Dr. Rubino: One important goal we are trying to achieve with the joined World Congress and DSS-II is to promote an evidence-based, multimodal approach to modern diabetes care and research.

In the World Congress, we will present the new DSS guidelines and their supporting evidence and also discuss the science behind surgery, new device-based treatment, and the integration of surgical and pharmacological therapies for optimization of outcomes. Importantly, the World Congress will also allow the discussion of the latest research findings on mechanisms of action of surgery and how this new knowledge may illuminate research aimed at understanding diabetes and metabolic illness. There will be plenary sessions on matters of policies and surgical access, a symposium dedicated to the physiology and pathophysiology of the gut in diabetes and obesity, and breakout sessions with oral and poster presentations of new studies worldwide.

A specific goal of the DSS-II is to develop guidelines for the treatment of diabetes that include surgery, thus eliminating the paradox I described previously. We want surgery to be considered an option for diabetes, just like metformin or insulin. We will also attempt to develop a set of recommendations that will align "diabetes surgery" with the standard for diabetes care.

Can you elaborate more on the DSS-II, its goals, and methods?

Dr. Rubino: The DSS-II is designed

"Differentiating obesity and T2DM makes sense both clinically and from the perspective of healthcare policies. The efficacy and cost effectiveness of treating obesity surgically is different than that of surgery for T2DM. Also, trying to stretch obesity treatment to cover T2DM may confuse policy makers."

to facilitate a joint statement from leading diabetes organizations (hopefully later endorsed by a broader group of surgical and endocrinological societies) that could serve as a global reference for the emerging field of diabetes/metabolic surgery. The specific aims of the DSS-II are as follows:

- To guide primary care physicians, endocrinologists/diabetes specialists, and surgeons in the appropriate selection of surgical candidates.
- To design a model of peri-operative and postoperative care specific for diabetes surgery and aligned with standards of diabetes care.
- To assist policy makers in identifying medically appropriate criteria for coverage of surgical treatment and priorities for access to surgical care.

The DSS-II expert panel that will be charged with developing the guidelines includes about 50 members (surgeons, endocrinologists, nutritionists, cardiologists). The ADA, EASD, IDF, Diabetes UK, and the national diabetes societies of China and India have named official representatives in the DSS-II expert panel.

The first phase of the DSS-II has already started with a systematic review of the literature performed by two senior editors of major scientific journals. This is meant to allow an assessment of evidence free of professional bias. Following this, we will use a Delphi-like method of consensus development (by e-mail survey and questionnaires) to develop a draft document with provisional guidelines/recommendations by the end of summer 2015.

The proposed guidelines and their supporting evidence will be presented during the World Congress in London, UK (September 28–30, 2015), where they will be critically discussed by other experts and by the audience at large. At the end of the congress, the DSS-II panel will meet again to consider possible amendments based on the public input received during the three-day congress and finalize the guidelines and recommendations. By attending the event in London, participants will be able not only to witness a process that may change the care of diabetes and influence their own practice, but also actually comment and provide input into this process. It is a rather historical opportunity and I am sure it will be a memorable event for all of us, organizers, faculty, and audience members.

Are we ready for "diabetes surgery"?

Dr. Rubino: At this time my answer would be "not yet." First, we need to consider what it really means, from a clinical practice standpoint, to treat diabetes by surgery as opposed to treating morbid obesity. It is not the same thing. In fact, obesity and T2DM are two distinct diseases with different available treatment options (i.e., think of all available medications for diabetes vs. the very few available for obesity), different disease progression, and complications. All of this needs to be considered when deciding the appropriate timing of treatment as well as the proper pathway for postoperative follow up. There is also need for additional specialistic expertise (e.g., diabetes specialists, diabetes educators, and other specialistic care) beyond that usually available in bariatric surgery today.

Differentiating obesity and T2DM makes sense both clinically and from the perspective of healthcare policies. The efficacy and cost effectiveness of treating obesity surgically is different than that of surgery for T2DM. Also, trying to stretch obesity treatment to cover T2DM may confuse policy makers. Furthermore, national healthcare budgets for obesity and diabetes are different. The amount of money spent on obesity is a trivial compared to the amount spent on diabetes care. Increasing the number of bariatric procedures to treat several more thousands of diabetic patients would actually be equivalent to multiple many folds the current spending for obesity—something that policy makers would see as causing major financial losses overnight. When the costs of surgery are instead considered in the context of diabetes budgets, they would be less frightening for policy makers and they may even realize how surgery may actually reduce the overall healthcare spending.

I think that understanding the differences begins with calling surgical therapies by their proper names—obesity surgery for the treatment of obesity and diabetes surgery for the treatment of diabetes. Metabolic surgery is an umbrella term that includes both bariatric surgery and diabetes surgery. Much like digestive surgery, which includes distinct disciplines for the treatment of different disease states (e.g., cancer surgery, reflux surgery, surgery for inflammatory bowel disease).

Where can readers find more information on and register for this event?

Dr. Rubino: For more information, visit http://www.wcitt2d.org/. Register by July 1, 2015 to receive the "early bird" rate. For group registration (10 participants and more), please contact the registration department at reg_wcidt15@kenes.com. I hope to see you many of you there. I'm looking forward to making history together!

REFERENCES
1. Ikramuddin S, Korner J, Lee WJ, et al. Roux-en-Y gastric bypass vs intensive medical management for the control of type 2 diabetes, hypertension, and hyperlipidemia: the Diabetes Surgery Study randomized clinical trial. *JAMA*. 2013;309(21):2240–2249.
2. Schauer PR, Bhatt DL, Kirwan JP, et al. Bariatric surgery versus intensive medical therapy for diabetes--3-year outcomes. *N Engl J Med*. 2014;370(21):2002–20013.
3. Mingrone G, Panunzi S, De Gaetano A, et al. Bariatric surgery versus conventional medical therapy for type 2 diabetes. *N Engl J Med*. 2012;366(17):1577–1585.

FUNDING: No funding was provided in the preparation of this manuscript.

FINANCIAL DISCLOSURES: The author reports no conflicts of interest relevant to the content of this article.

ADDRESS FOR CORRESPONDENCE:
Dr. Francesco Rubino; E-mail:
frubinomd@gmail.com