Review of NEJM article "Bariatric Surgery versus Intensive Medical Therapy in Obese Patients with Diabetes" by Schauer et al

Corresponding Author:
Mr. Kamal K Mahawar,
Consultant General and Upper GI Surgeon, Department of General Surgery, Sunderland Royal Hospital, Kayll Road., SR4 7TP - United Kingdom

Submitting Author:
Mr. Kamal K Mahawar,
Consultant General and Upper GI Surgeon, Department of General Surgery, Sunderland Royal Hospital, Kayll Road., SR4 7TP - United Kingdom

Article ID: WMC003208
Article Type: Post Publication Peer Review of Published Literature
Submitted on: 01-Apr-2012, 04:03:19 PM GMT   Published on: 01-Apr-2012, 04:13:03 PM GMT
Article URL: http://www.webmedcentral.com/article_view/3208
Subject Categories: BARIATRIC AND METABOLIC SURGERY
Keywords: Diabetes Mellitus, Bariatric Surgery, Laparoscopic Bypass, Laparoscopic Sleeve Gastrectomy

How to cite the article: Mahawar KK. Review of NEJM article "Bariatric Surgery versus Intensive Medical Therapy in Obese Patients with Diabetes" by Schauer et al. WebmedCentral BARIATRIC AND METABOLIC SURGERY 2012;3(4):WMC003208

Copyright: This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Source(s) of Funding: None

Competing Interests:
I am a director, Share holder, and CEO of Webmed Limited, UK (the company that owns this portal WebmedCentral).
Review of NEJM article "Bariatric Surgery versus Intensive Medical Therapy in Obese Patients with Diabetes" by Schauer et al

Author(s): Mahawar KK

Citation of the Article Reviewed


Review

Undoubtedly, this is a very significant study for practitioners of bariatric surgery and all those involved in management of patients with Type 2 Diabetes Mellitus. Authors deserve to be congratulated for undertaking and publishing this study. I am happy to share my following observations regarding this study.

1. It is known that bariatric surgery leads to improvement in diabetic control in patients with Type 2 Diabetes Mellitus in the short term. In that context, results are not altogether surprising. It would be particularly interesting to find out what happens to these patients in longer term. Authors acknowledge short duration of follow up to be a limitation of this study.

2. Patients in this study had more advanced diabetes but lower BMI and that makes it really attractive for this group of patients. Authors point out that one of the aims of this study was to see the effect of bariatric surgery in those with moderate obesity and this seems to be the major thrust of this study. According to them moderate obesity implies patients with BMI between 30 and 35. However WHO would define this group as class 1 obesity and since this is the group of obese patients with lowest BMI, perhaps it should be referred to as “mild obesity”. Indeed this study also includes patients with BMI as low as 27, who are overweight but not obese. NICE (National Institute for Clinical Excellence) guidelines in UK currently do not advocate bariatric surgery for patients with BMI less than 35. Whether it would change in future and bariatric surgery would find a place in management of type 2 diabetic patients who are overweight or suffer with class 1 obesity, remains to be seen. This study makes a strong case for it.

3. The study was approved by Cleveland Clinic Institutional Review Board. It would be worth knowing whether the Review Board had any concerns with regards to BMI of the patients undergoing surgery. Patients were recruited by advertisements in local media. It would be worth knowing what was said in the advertisements. What benefits were offered to patients for participating in this study?

4. Percentage of excess weight loss of 88% and 81% with bypass and sleeve respectively seem more than what others have reported. This may partly be due to the fact that the study subjects are generally those with lower BMI. Mean BMI in study was 36 and 34% of patients had a BMI lower than 35. Results in heavier patients with such advanced diabetes may be less rewarding.

5. It would have been particularly interesting to examine differences between the two surgical procedures. Study was not powered to evaluate this aspect. Even though results did not reach statistical significance, bypass seemed superior to sleeve with regards to diabetes. Relative contribution of weight loss and hormonal factors in amelioration of diabetes may be different in different BMI groups. It is conceivable that hormonal factors will play a bigger role in patients with lower BMI. This perhaps accounts for the fact why sleeve patients seemed to have a slightly worse outcome with regards to diabetic control in this study. Others have reported similar (even better) improvements in diabetes with sleeve as compared to bypass.

6. Authors performed what many would consider a “tight sleeve” with a size 30Fr bougie (endoscope) and 3 cm distance from pylorus and a fairly standard bypass of 50 cms biliary limb and 150 cm alimentary limb. They report 3 (6%) reoperation with bypass and 1 (2%) with sleeve. 4 (8%) patients undergoing bypass had anastomotic ulceration. Also the hospitalisation rate in bypass patients at 22% was higher than 8% and 9% respectively in sleeve and medical
management alone group. There was one leak in the sleeve group. Authors do not mention if there was problem with reflux in sleeve group, which would be interesting considering the size of their sleeve. In supplementary appendix, authors mention that 38% of patients undergoing sleeve had reflux before surgery.

7. It is worth noting that this is a study from a reputed centre for bariatric surgery and results shown by very experienced surgeon (note all operations performed by one surgeon) may not be easily reproduced by others. Perhaps a pragmatic multi-centre trial simulating more closely the real world scenario would be a fairer comparison.

8. There was no mortality in any arm in this study and to see impact on mortality was not the purpose of this study either. However, in the short term, a widely accepted mortality of 1:300 with bypass and 1:500 with sleeve should not be ignored. In the long term, whether the benefits in mortality seen in heavier patients would also be seen in the patients with an average BMI of 36 would be an interesting aspect to examine.

9. In the protocol, authors mention that they would study end organ damage, quality of life, and cost effectiveness as secondary outcome. I did not find much about them in the actual paper. This would have been important as improvement in diabetes is just one aspect of bariatric surgery. It leads to improvement in a range of other parameters that influence quality and quantity of life.

10. None the less, it is a remarkable paper and would be read with interest by a large number of people interested in this area.
Disclaimer

This article has been downloaded from WebmedCentral. With our unique author driven post publication peer review, contents posted on this web portal do not undergo any prepublication peer or editorial review. It is completely the responsibility of the authors to ensure not only scientific and ethical standards of the manuscript but also its grammatical accuracy. Authors must ensure that they obtain all the necessary permissions before submitting any information that requires obtaining a consent or approval from a third party. Authors should also ensure not to submit any information which they do not have the copyright of or of which they have transferred the copyrights to a third party.

Contents on WebmedCentral are purely for biomedical researchers and scientists. They are not meant to cater to the needs of an individual patient. The web portal or any content(s) therein is neither designed to support, nor replace, the relationship that exists between a patient/site visitor and his/her physician. Your use of the WebmedCentral site and its contents is entirely at your own risk. We do not take any responsibility for any harm that you may suffer or inflict on a third person by following the contents of this website.