



Biliopancreatic Limb & Change in HbA1c , a 14-year follow-up in MGB-OAGB with tailored limb.

K.S. KULAR MS, FMBS
N. MANCHANDA MS, FMAS

KULAR COLLEGE & HOSPITAL, LUDHIANA, PB, INDIA





Mini Gastric Bypass (MGB)

becoming

popular bariatric procedure

safety, efficacy and reversibility.

BP LIMB STILL CONTROVERSIAL





Prospective review

113 Morbidly Obese +Type 2 DM Pts

Tailored MGBs

Feb 2007 to Feb 2009





Total number of tailored MGB Pts with Type 2 DM
(Feb 2007-2009) = 113

years	Patients in follow up (number)	Follow up %
1 year	113	100
5 years	94	83
10 years	89	79
14 years	75	66





	Complications	Number of patients	Management
Early Minor	Wound infection Nausea , vomiting Anastomotic bleed	1(0.8%) 5(4.4%) 1(0.8%)	Conservative PPI's Conservative
Early Major	Excessive post- op bleed Diabetic ketoacidosis Leak Pneumonitis Intra-abdominal abscess Umbilical hernia obstruction	1(0.8%) 2(1.7%) 0 (0%) 1(0.8%) 2(1.7%) 0(0%)	Relaparoscopy in 1 (0.8%) Medical Medical Percutaneous drainage
Late	Marginal Ulcer Moderate/Severe Anemia < 10 g/dl Low albumin (2.5-3.5) Low albumin (<2.5) Bile reflux Excess weight loss Gall-stone pancreatitis Port site hernia	2(1.7%) 6(5.3%) 4(3.5%) 1(0.8%) 2(1.7%) 2 (1.7%) 0(0%) 0(0%)	Antacids,PPI's Oral iron/injectables Conservative Reversal Conservative Conservative





Perioperative Results MGB (n=113)	
Mean operative time (min)	46 ± 11.5
Hospital stay (days)	2.3 ± 1.0
Post-op flatus passage (days)	1.2±2.3
Analgesic use (units)	1.3±0.6
CPAP/BiPAP needs	24 (21 %)
Need for PPIs	12 (10.6 %)
30-day mortality	0 (0.0%)



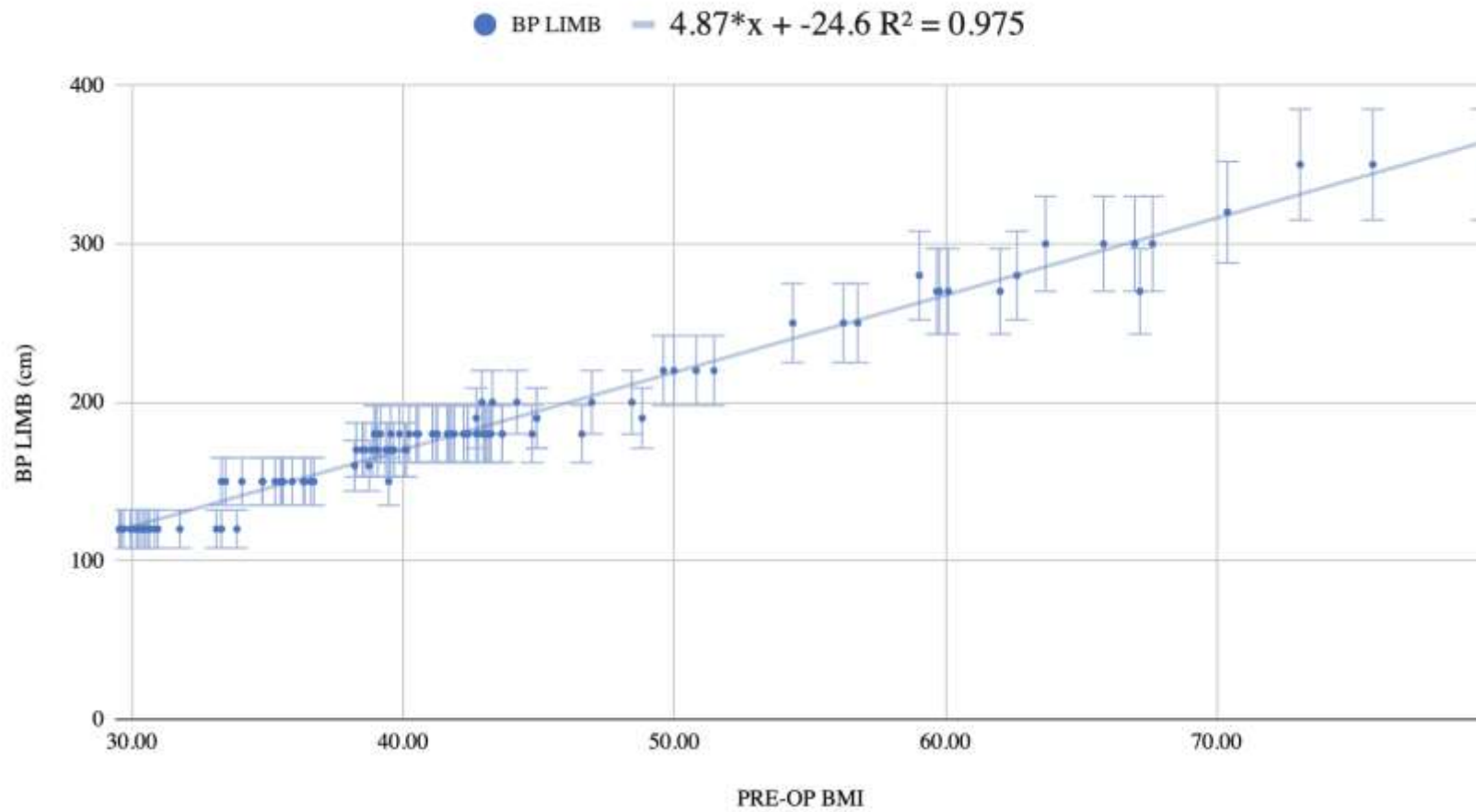


Hba1c	
Pre-op	9.16+/-1.60 range 6.8 - 14.7
1 year	5.50+/-0.36
5 years	5.65+/-0.35
10 year	5.82+/- 0.41
14 year	5.90+/- 0.62





BP LIMB SELECTION ACCORDING TO BMI

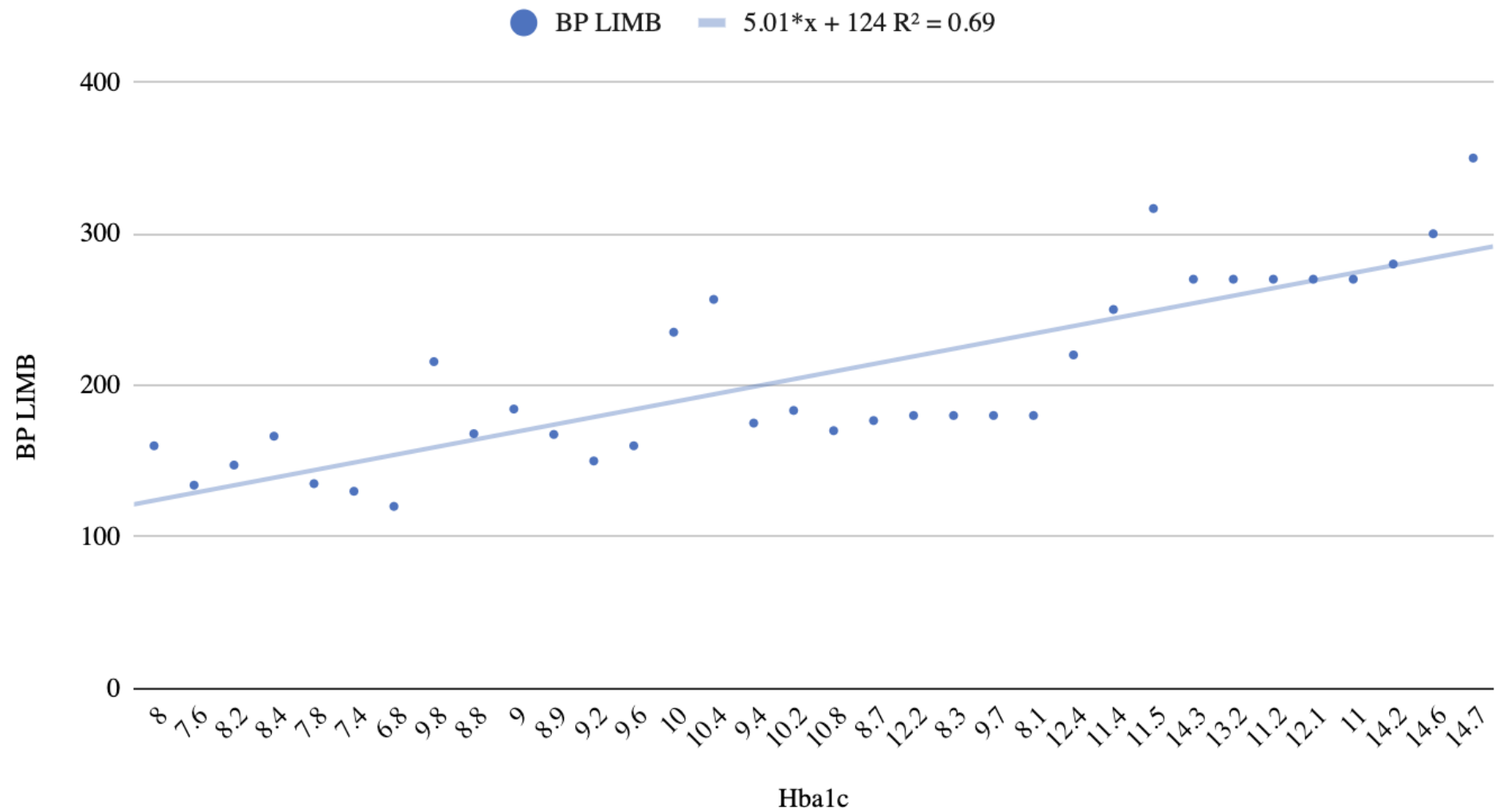


Min CL = 350 cm (50% Total length)



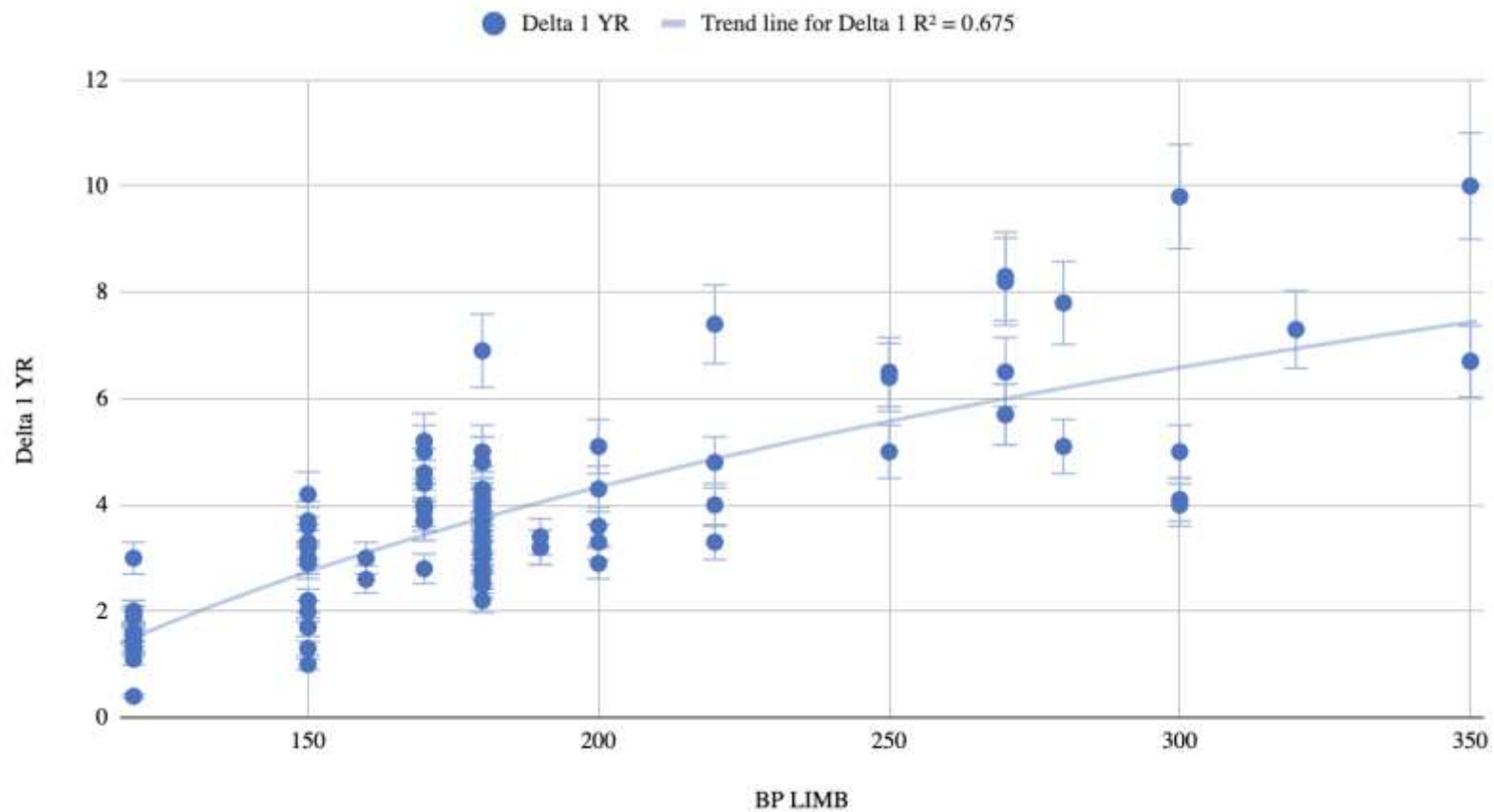


Hba1c-Pre-OP vs BP LIMB



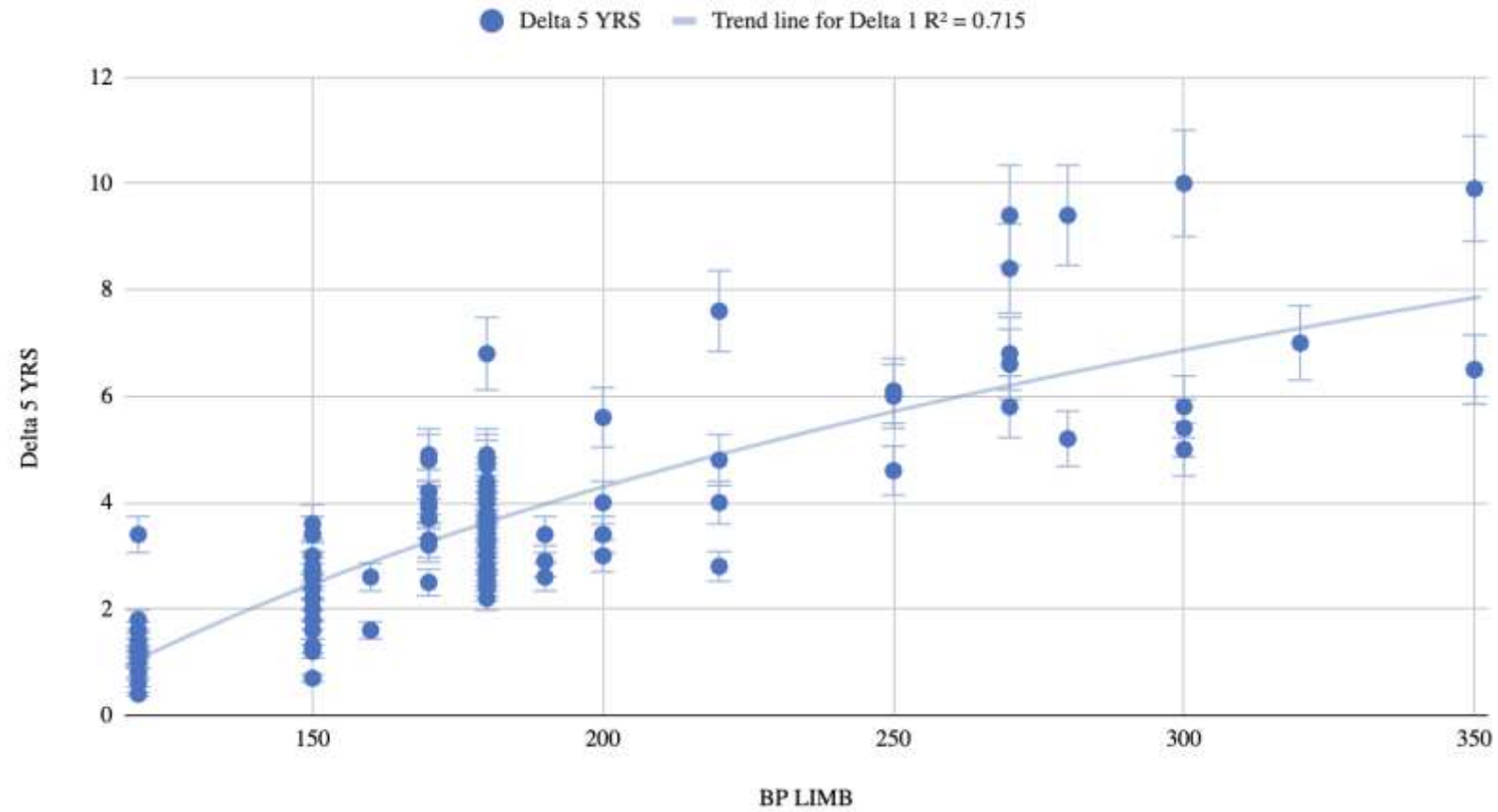


Delta 1 YR vs BP LIMB



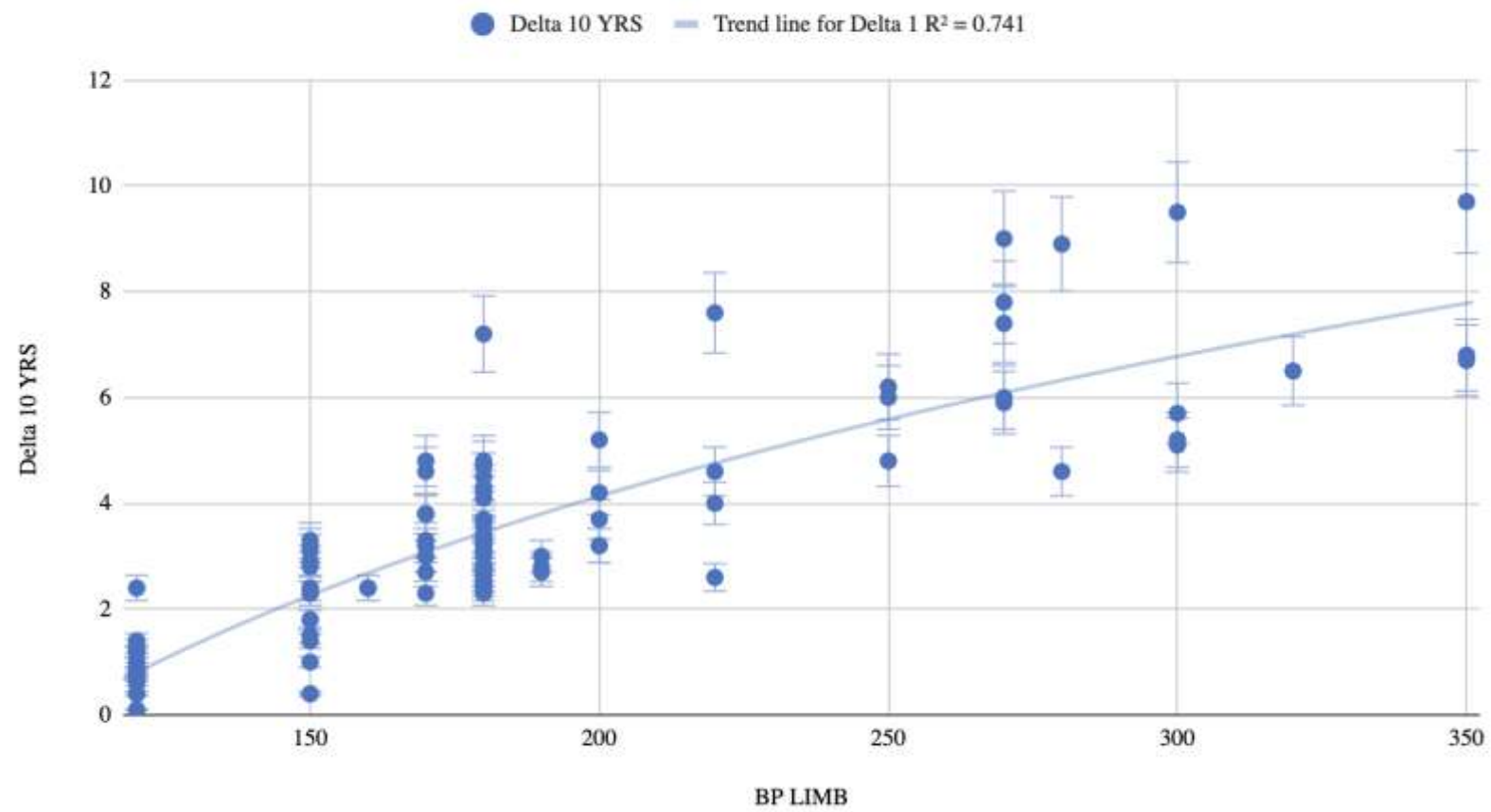


Delta 5 YRS vs BP LIMB



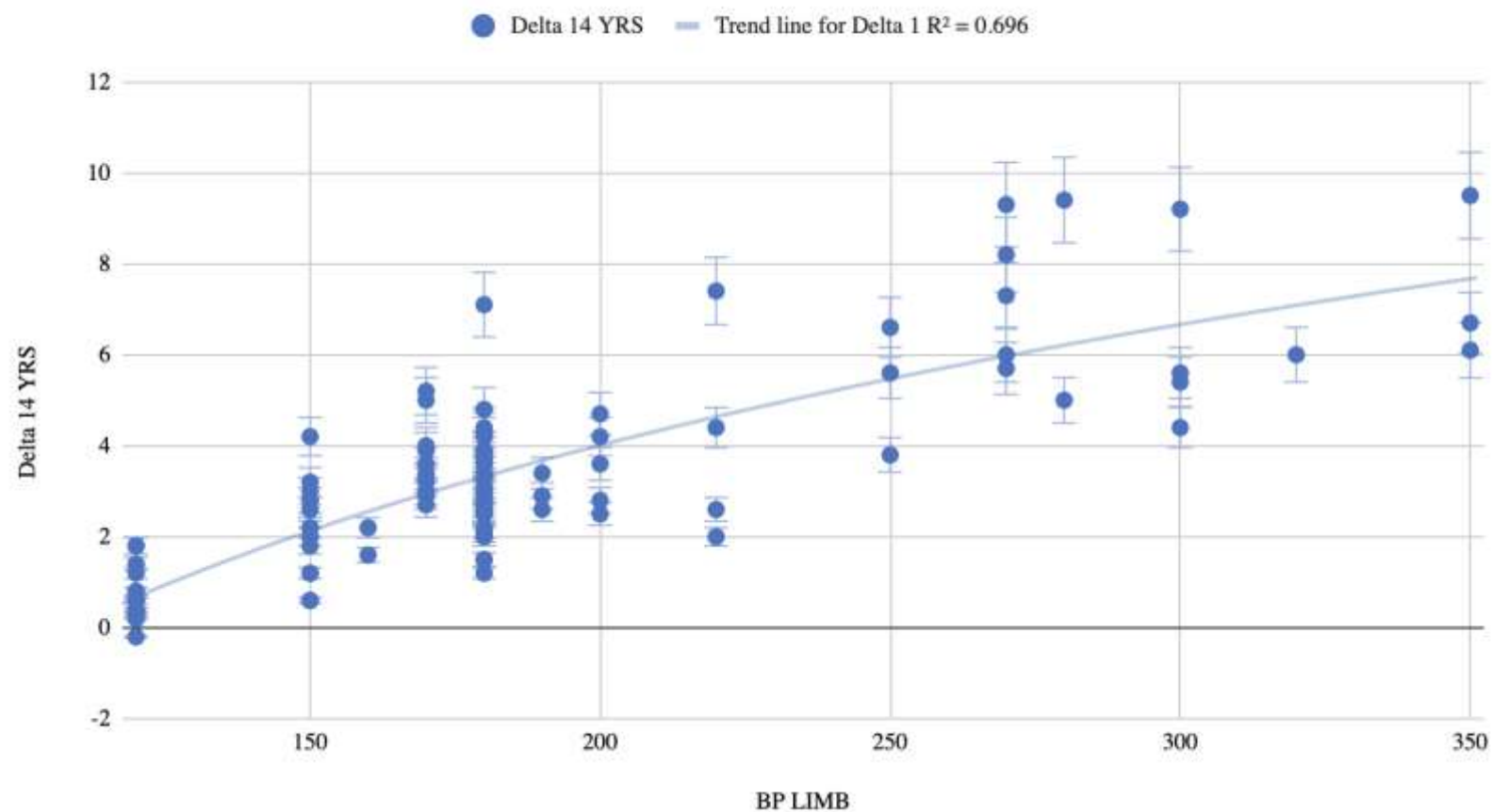


Delta 10 YRS vs BP LIMB

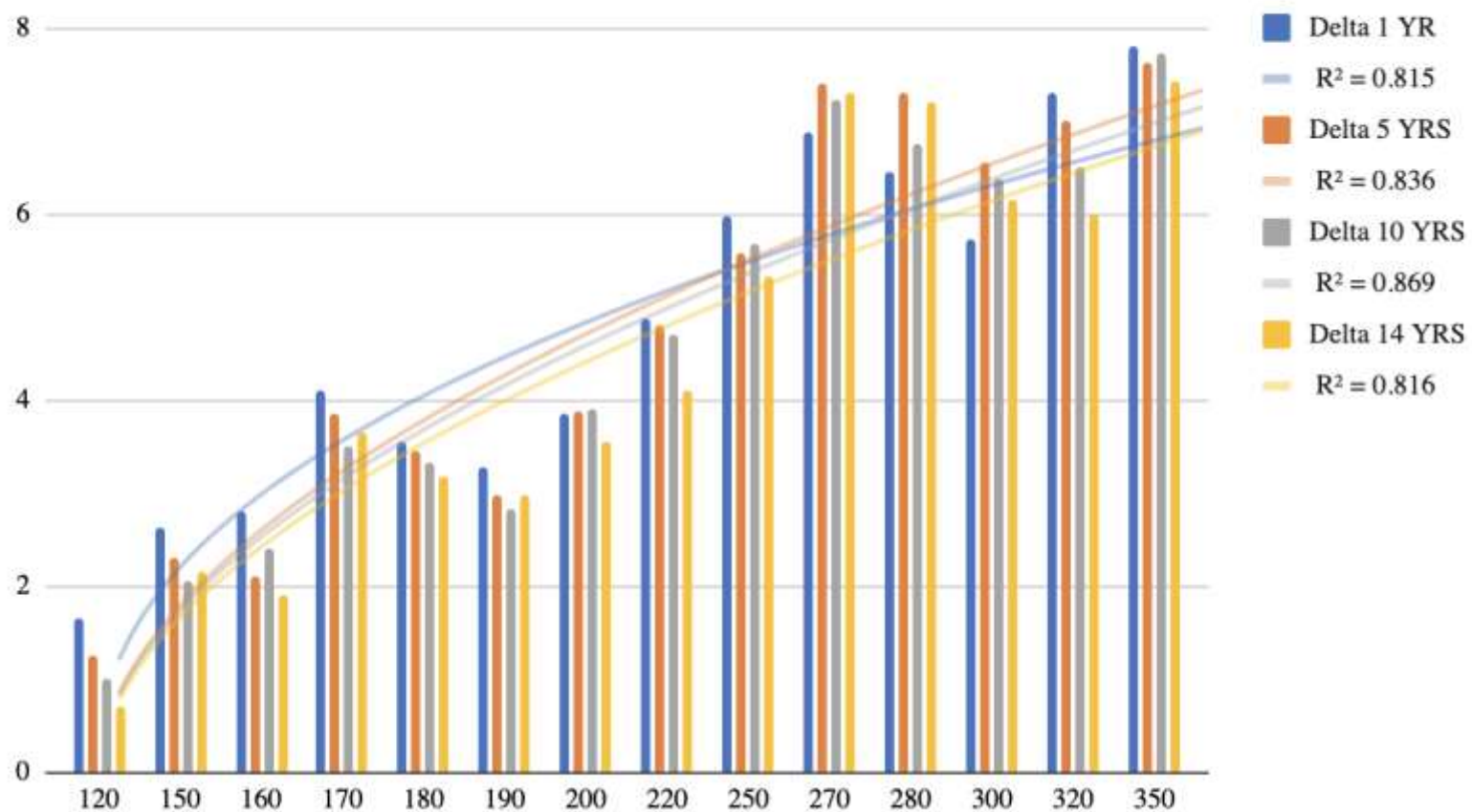




Delta 14 YRS vs BP LIMB

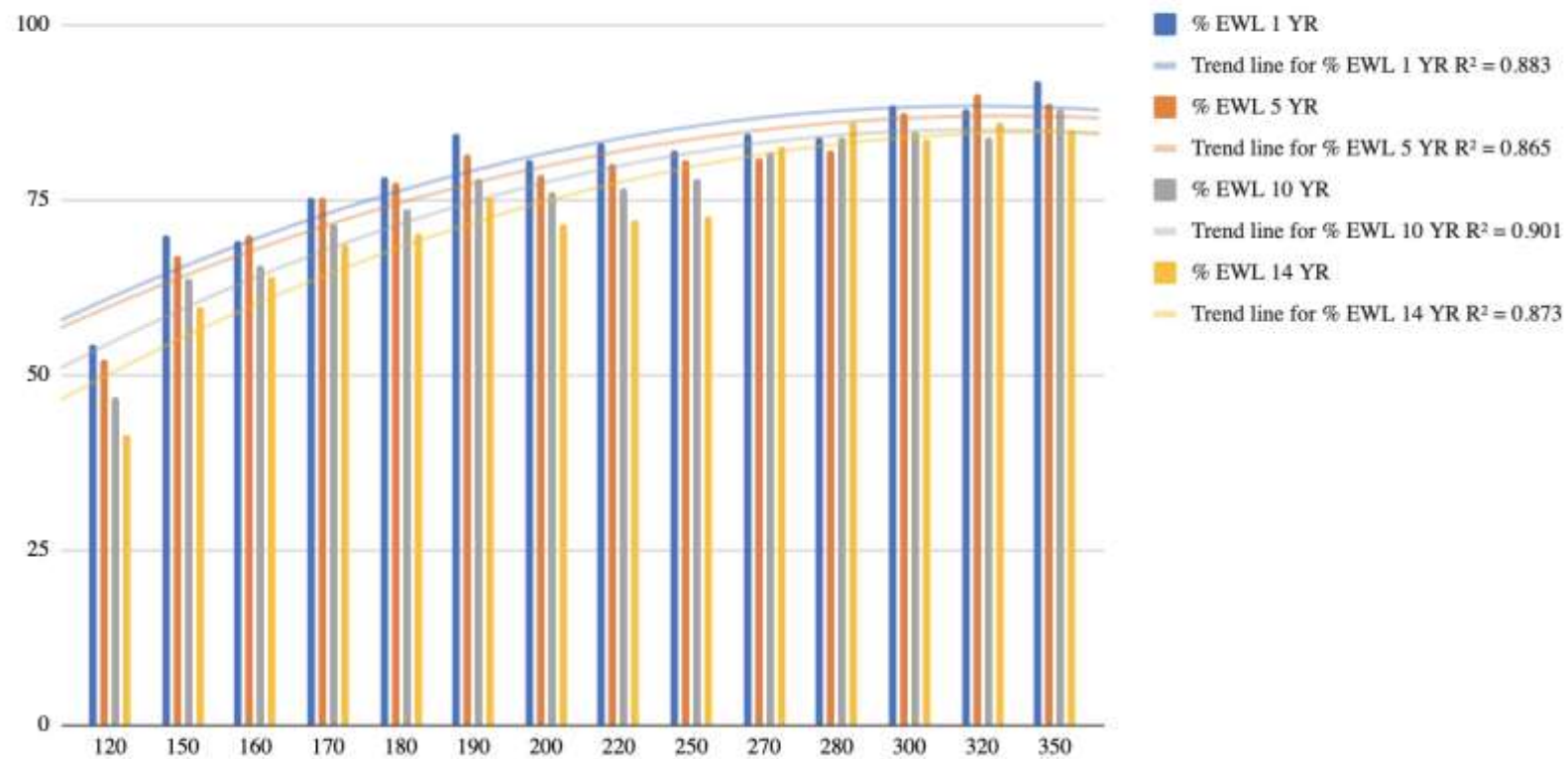


BP LIMB vs Delta 1, Delta 5, Delta 10 and Delta 14



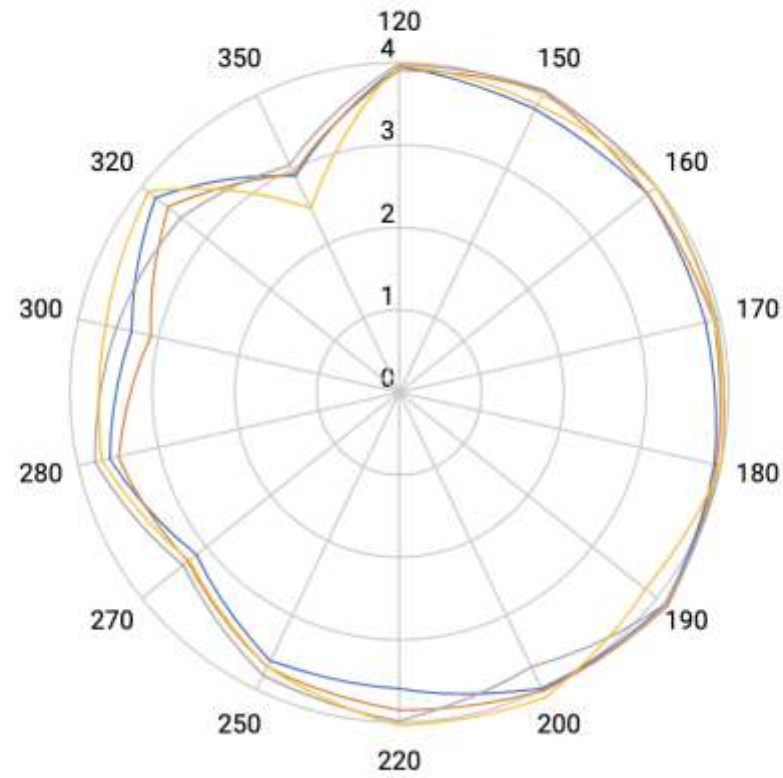


BPL, % EWL 1 YR, % EWL 5 YR, % EWL 10 YR and % EWL 14 YR

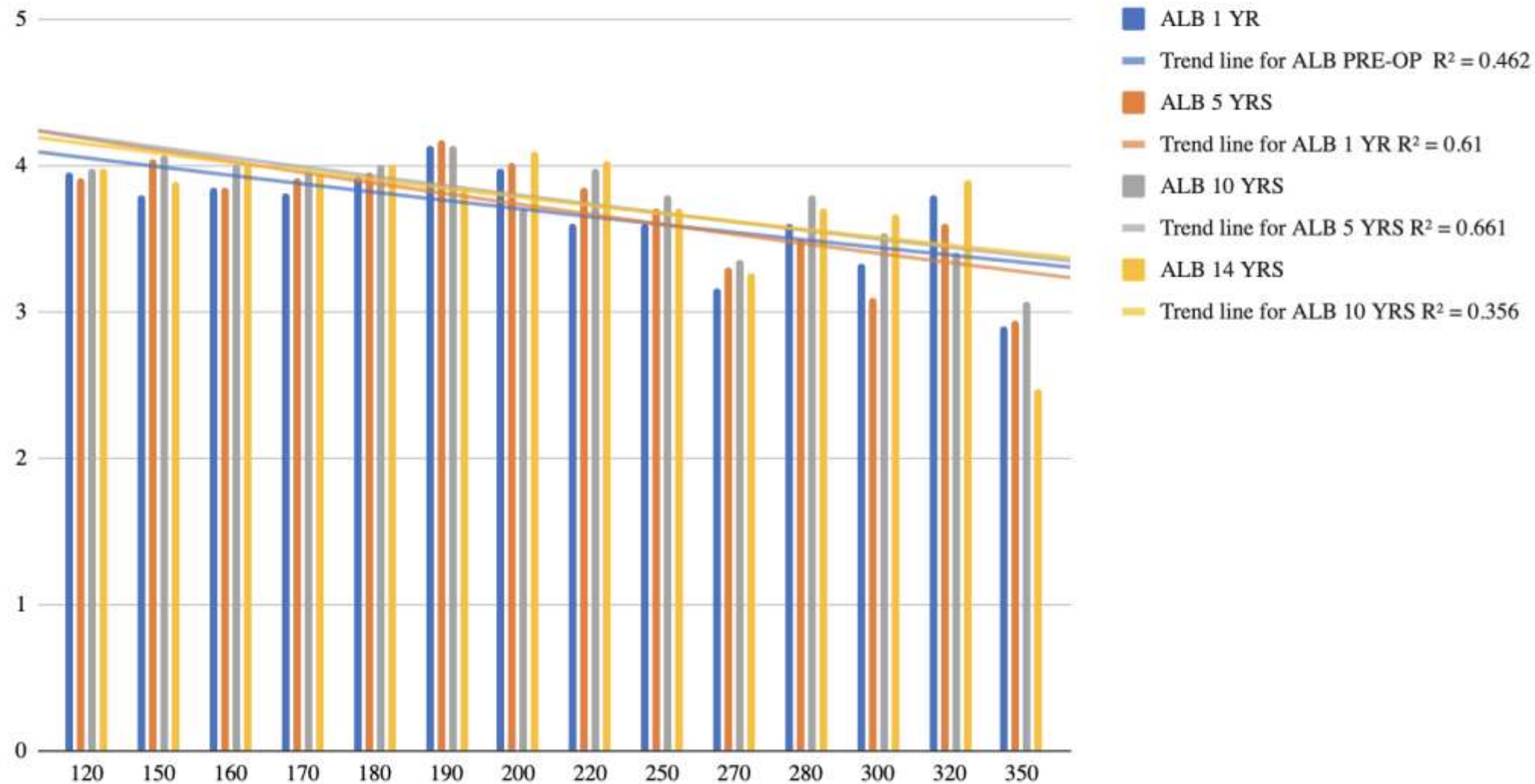


BPL, ALB 1 YR, ALB 5 YRS, ALB 10 YRS and ALB 14 YRS

ALB 1 YR ALB 5 YRS ALB 10 YRS ALB 14 YRS



BPL, ALB PRE-OP , ALB 1 YR, ALB 5 YRS, ALB 10 YRS...





> [Obes Surg.](#) 2018 Jan;28(1):204-211. doi: 10.1007/s11695-017-2831-2.

Perioperative Practices Concerning One Anastomosis (Mini) Gastric Bypass: A Survey of 210 Surgeons

Kamal K Mahawar ^{1 2}, Kuldeepak Singh Kular ³, Chetan Parmar ⁴, Michael Van den Bossche ⁵,
Yitka Graham ^{6 7}, William R J Carr ⁶, Brijesh Madhok ⁸, Conor Magee ⁹, Sanjay Purkayastha ¹⁰,
Peter K Small ^{6 7}

A minority (35.0%, n = 74/208) of the surgeons used a constant bilio-pancreatic limb (BPL) length for all the patients with remaining preferring to tailor the limb length to the patient





> [Obes Surg. 2008 Mar;18\(3\):294-9. doi: 10.1007/s11695-007-9367-9. Epub 2008 Jan 12.](#)

Laparoscopic mini-gastric bypass: experience with tailored bypass limb according to body weight

Wei-Jei Lee ¹, Weu Wang, Yi-Chih Lee, Ming-Te Huang, Kong-Han Ser, Jung-Chien Chen

Conclusion: Morbidly obese patients receiving gastric bypass surgery may need to tailor the bypass limb according to BMI. The application of gastric bypass in lower BMI patients should be more carefully.



Review > [Obes Surg.](#) 2023 Jun;33(6):1846-1856. doi: 10.1007/s11695-023-06556-9.

Epub 2023 Apr 6.

One Anastomosis Gastric Bypass (OAGB) with a 150-cm Biliopancreatic Limb (BPL) Versus a 200-cm BPL, a Systematic Review and Meta-analysis


Mohamed AbdAlla Salman ¹, Ahmed Salman ², Mohamed Moustafa Assal ³,

deficiency rates were found in the 200-cm BPL group. Considering a 200-cm BPL when performing OAGB delivers a better weight loss outcome than a 150-cm BPL, which is at the expense of a more severe nutritional deficiency. No significant differences were found regarding the comorbidities'



Review | [Published: 29 January 2022](#)

Effect of Biliopancreatic Limb Length on Weight Loss, Postoperative Complications, and Remission of Comorbidities in One Anastomosis Gastric Bypass: a Systematic Review and Meta-analysis

[Erfan Tasdighi](#), [Maryam Barzin](#), [Kamal K. Mahawar](#), [Farhad Hosseinpanah](#), [Amir Ebadinejad](#), [Nazanin Taraghikhah](#), [Anahita Mansoori](#), [Alireza Khalaj](#), [Mahtab Niroomand](#), [Majid Valizadeh](#) & [Behnaz Abiri](#) 

[Obesity Surgery](#) **32**, 892–903 (2022) | [Cite this article](#)

length ≥ 200 cm (by -14.93 , 95% CI -15.66 , -14.20) significantly decreased BMI. Regarding the effect of BPL length on comorbidities and postoperative complications, it was shown that BPL length < 200 cm is safer and more effective. Therefore, standardization of BPL length < 200 cm is suggested. Bypassing ≥ 200 cm of the small bowel does not ameliorate weight loss or resolve comorbidities significantly, and it is related to more frequent postoperative





> [Obes Surg.](#) 2022 Jul;32(7):2309-2320. doi: 10.1007/s11695-022-06078-w. Epub 2022 Apr 29.

Outcomes and Effects of 250-cm Biliopancreatic Limb One Anastomosis Gastric Bypass in Patients with BMI > 50 kg/m² with Total Bowel Length > 6 m: a 2-Year Follow-up

Moheb S Eskandaros ¹

Conclusion: Long BP (250 cm) OAGB in patients with BMI > 50 kg/m² with TWL > 6 m had good results in the achievement of weight loss and weight maintenance goals with remission of associated comorbidities as HTN and DM.



Observational Study > *Obes Surg.* 2019 Sep;29(9):3062-3070.

doi: 10.1007/s11695-019-04019-8.

One Anastomosis Gastric Bypass–Mini Gastric Bypass with Tailored Biliopancreatic Limb Length Formula Relative to Small Bowel Length: Preliminary Results

Iman Komaei ¹, Federica Sarra ¹, Claudio Lazzara ¹, Michele Ammendola ², Riccardo Memeo ³, Giuseppe Sammarco ², Giuseppe Navarra ¹, Giuseppe Currò ^{4 5}

Conclusion: Tailoring BPL length by bypassing about 40% of the SBL seems to be safe and effective. According to preliminary results of this study, a tailored BPL length relative to SBL is even likely to be superior to the fixed 200-cm BPL as it is associated with less nutritional deficiencies while providing similar weight loss results. Further randomized studies with larger sample sizes and longer follow-up periods are necessary to confirm the primary results of this study.



> J Res Med Sci. 2020 Jan 20;25:5. doi: 10.4103/jrms.JRMS_117_19. eCollection 2020.

Weight loss after one-anastomosis/mini-gastric bypass – The impact of biliopancreatic limb: A retrospective cohort study

Mohammad Kermansaravi ^{1 2}, Mohadeseh Pishgahroudsari ¹, Ali Kabir ¹,
Mohammad Reza Abdolhosseini ¹, Abdolreza Pazouki ^{1 2}

Conclusion: Tailoring BPL in OAGB/MGB based on patient's age and preoperative BMI seems to have acceptable results.





> [Obes Surg.](#) 2021 Oct;31(10):4236-4242. doi: 10.1007/s11695-021-05555-y. Epub 2021 Jul 20.

Outcomes of the One Anastomosis Gastric Bypass with Various Biliopancreatic Limb Lengths: a Retrospective Single-Center Cohort Study

Nienke Slagter ¹, Loek J M de Heide ², Ewoud H Jutte ², Mirjam A Kaijser ², Stefan L Damen ², André P van Beek ³, Marloes Emous ²

Results: Of the 632 included patients, a BP-limb length of 150 cm was used in 172 (27.2%), 180 cm in 388 (61.4%), and 200 cm in 72 (11.4%) patients. Despite more BMI loss, %EWL was lower and attained BMI remained higher in the groups with longer BP-limb lengths. After adjustment for the confounder preoperative BMI, longer BP-limb lengths were not associated with higher BMI loss. There was no difference in remission rates of comorbidities.



Epub 2021 Feb 19.

Roux-en-Y gastric bypass versus one anastomosis-mini gastric bypass as a rescue procedure following failed restrictive bariatric surgery. A systematic review of literature with metanalysis

Nunzio Velotti ¹, Antonio Vitiello ², Giovanna Berardi ², Katia Di Lauro ², Mario Musella ²

Methods: A systematic search was performed in all electronic databases to find studies comparing one anastomosis-mini gastric bypass (OAGB-MGB) or Roux-en-Y gastric bypass (RYGB) as revisional bariatric surgery for weight regain or intolerance/complications of a primary restrictive procedure. The data regarding sample size, patients' gender, age, primary surgery type, number of perioperative complications, operative time, pre- and post-revisional body mass index (BMI), and excess weight loss % (EWL%) at 1-year follow-up were extracted. Five studies were included in the analysis.

MGB had a lower rate of bleedings; considering the progression from pre- to post-revisional BMI, OAGB-MGB reveals a better outcome as well as a shorter operative time.



> Int J Surg. 2020 Sep;81:32-38. doi: 10.1016/j.ijssu.2020.07.007. Epub 2020 Jul 29.

One Anastomosis/Mini Gastric Bypass (OAGB-MGB) as revisional bariatric surgery after failed primary adjustable gastric band (LAGB) and sleeve gastrectomy (SG): A systematic review of 1075 patients

Chetan D Parmar ¹, Jonathan Gan ², Christine Stier ³, Zhiyong Dong ⁴, Sonja Chiappetta ⁵,
Luciana El-Kadre ⁶, Moataz M Bashah ⁷, Cunchuan Wang ⁴, Nasser Sakran ⁸

(2-28). The median limb length was 200 cm (range 150-250 cm). Leak rate was 1.54%. Marginal ulcer rate was 2.44%. Anemia rate was 1.9%. Mortality was 0.3%. The excess weight loss (%EWL) at 1 year and 2 years was 65.2% and 68.5% respectively.

Conclusion: We conclude that there is evidence to consider OAGB-MGB as a safe and effective choice for RBS. Randomised studies with long term follow-up are suggested for the future.



Clinical Trial > *Obes Surg.* 2018 Mar;28(3):599-605. doi: 10.1007/s11695-017-2933-x.

A Prospective Single-Arm Trial of Modified Long Biliopancreatic and Short Alimentary Limbs Roux-En-Y Gastric Bypass in Type 2 Diabetes Patients with Mild Obesity

Abdon José Murad Jr ¹, Ricardo Vitor Cohen ², Eudes Paiva de Godoy ³,

Conclusions: RYGB with long-biliopancreatic and short-alimentary limbs is safe and seems effective in achieving complete control of T2D in patients with BMIs between 30 and 35 kg/m².





> [Wideochir Inne Tech Maloinwazyjne](#). 2021 Mar;16(1):129-138. doi: 10.5114/wiitm.2020.99997.
Epub 2020 Oct 14.

Short versus long biliopancreatic limb in Roux-en-Y gastric bypass surgery for treatment of type 2 diabetes mellitus

Zhigang Ke¹, Fan Li¹, Yu Gao¹, Xunmei Zhou², Fang Sun², Li Wang¹, Jing Chen², Xin Tan³,
Zhiming Zhu², Weidong Tong¹

Conclusions: With consistent total small bowel bypass (AL + BPL) lengths, lengthening of the BPL from 30 to 100 cm did not affect the post-RYGB glycemic control and weight loss.



Randomized Controlled Trial > Surg Obes Relat Dis. 2021 Aug;17(8):1425-1430.

doi: 10.1016/j.soard.2021.03.030. Epub 2021 Apr 9.

Long versus short biliopancreatic limb in Roux-en-Y gastric bypass: short-term results of a randomized clinical trial

Carlos Zerrweck ¹, Antonio Herrera ², Elisa M Sepúlveda ², Fátima M Rodríguez ²,
Lizbeth Guilbert ²

Conclusion: The Roux-en-Y gastric bypass with 200 cm of biliopancreatic limb length induces more weight loss at 12 months than a 50 cm limb length. Better HbA1C levels were also observed, but similar effects on co-morbidities and complications were noted.



> [Obes Surg.](#) 2011 Nov;21(11):1643-9. doi: 10.1007/s11695-011-0418-x.

Metabolic laparoscopic gastric bypass for obese patients with type 2 diabetes

Mário Nora ¹, Marta Guimarães, Rui Almeida, Paulo Martins, Gil Gonçalves, Maria José Freire, Tiago Ferreira, Cláudia Freitas, Mariana P Monteiro

200 cm BP Limb in RNY

Gastric bypass in obese patients is associated with a high remission rate of diabetes and improvement of the metabolic control. Remission rates of diabetes were 87.91% at 6 months, 92.68% at 12 months, 92.85% at 24 months, and 100% at 36 months of follow-up.





There is a strong linear correlation between the BP limb & the Delta Hba1c observed up-to 14 years.

Tailoring gives better results, but when the BPL crosses 40% of total length, the albumin starts going down significantly.

Tailoring is indispensable, but there is a limit.



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19th - 21st April, 2024

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