# MBS in patients with auto immune arthritis

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**I have no potential conflict of interest to report**

ABSTRACT NUMBER: 1289

# Evaluating Peri–operative Preferences of Bariatric Surgeons in the Management of Immunosuppressive Therapy During Bariatric Surgery

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**Meeting:** ACR Convergence 2022

**Keywords:** Biologicals, Disease-Modifying Antirheumatic Drugs (Dmards), obesity, surgery

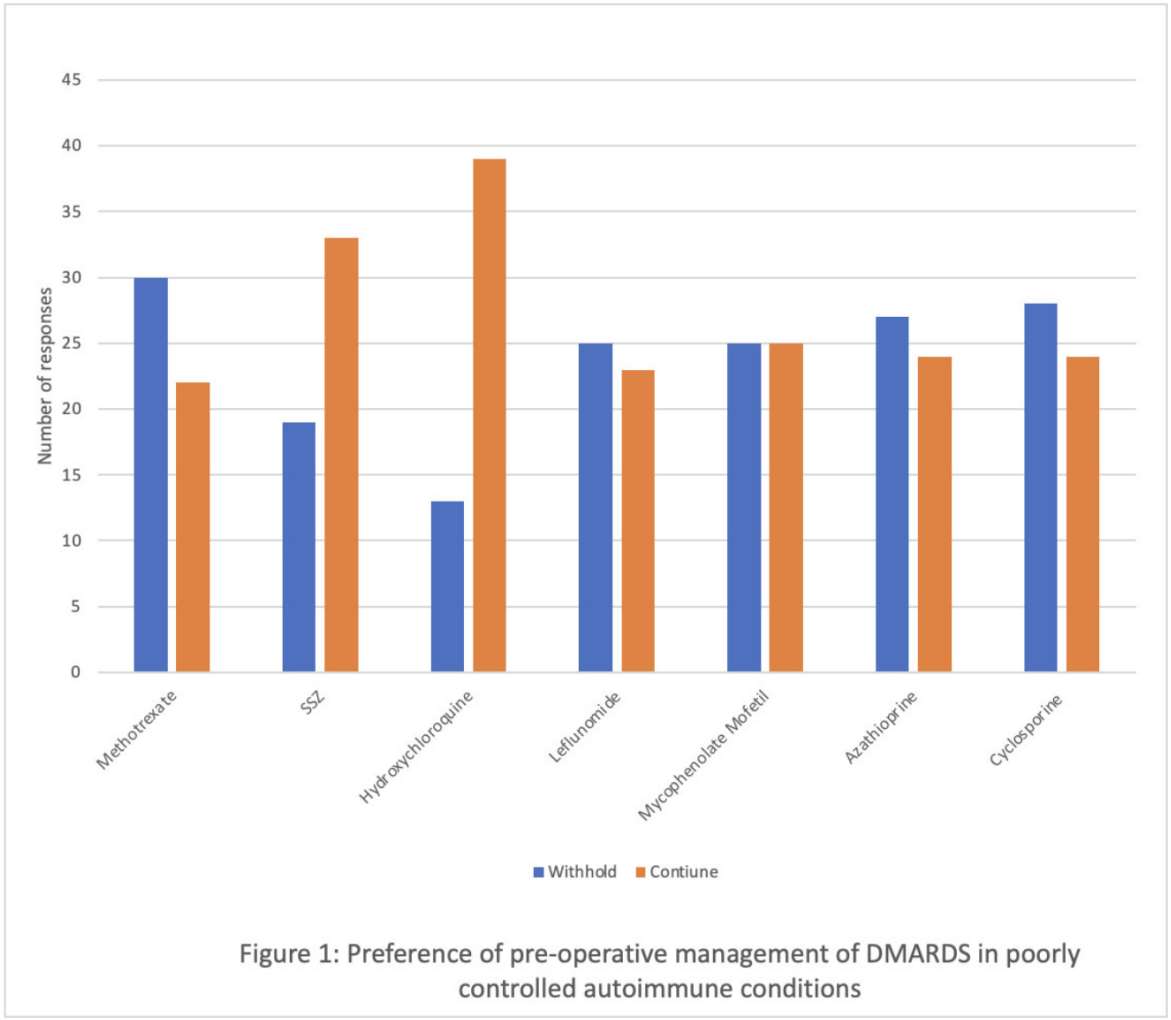


Figure 1: Preference of pre-operative management of DMARDS in poorly controlled autoimmune conditions

Figure 1: Preference of pre-operative management of DMARDs in poorly controlled autoimmune conditions

- Patient MM - 35 year old female; Ht 160cm Wt 160kg BMI 62.5kg/m2

- Life long obesity, 99kg when graduating high school
- Family history of obesity, type IIDM, HT, OSA and IHD, multiple 1st degree relatives have previous bariatric surgery

- Psoriatic arthritis
  - Intermittent high dose steroids for flares
  - Currently takes mycophenolate with arthritis in “remission”, previously severe arthritis with ambulation requiring 4WF, now can walk 100m
- Smoker 10 / day for 10 years

- Unsuccessful weight loss with multiple diets and intensive lifestyle modification, duromine, saxenda
- Abdominal pain (repeatedly) with Ozempic
- Can’t afford mounjaro

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Original article

# Effect of metabolic surgery on immunosuppressive medication use in patients with rheumatic diseases

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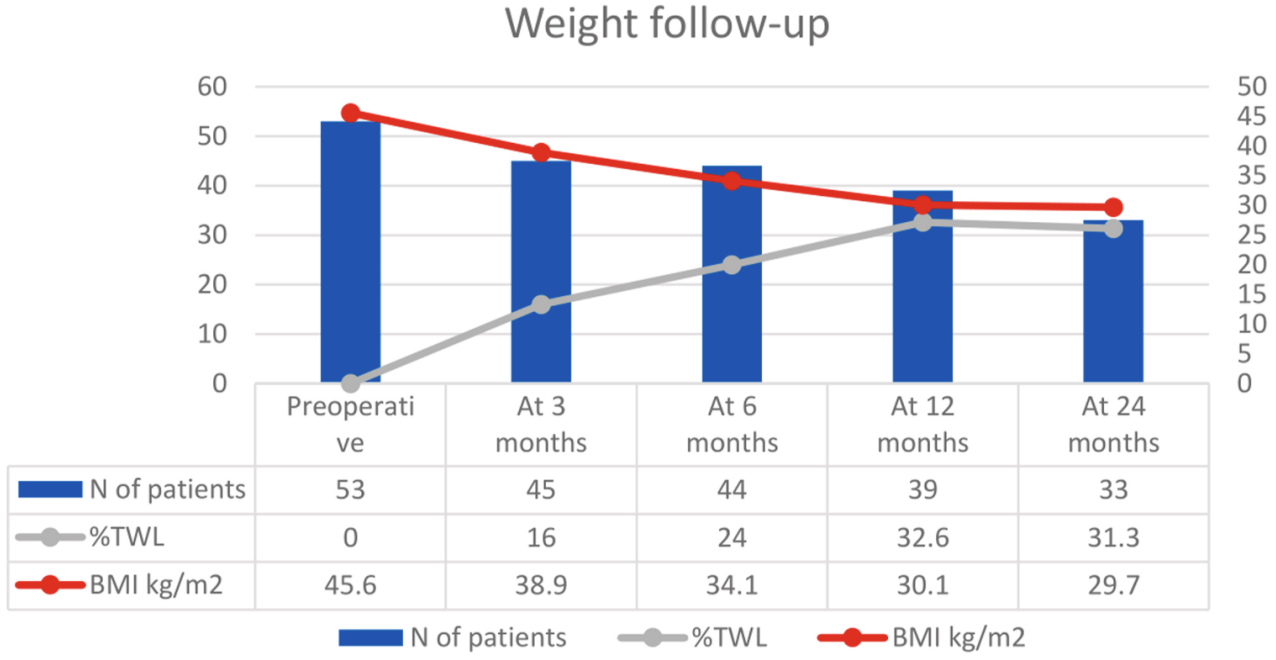
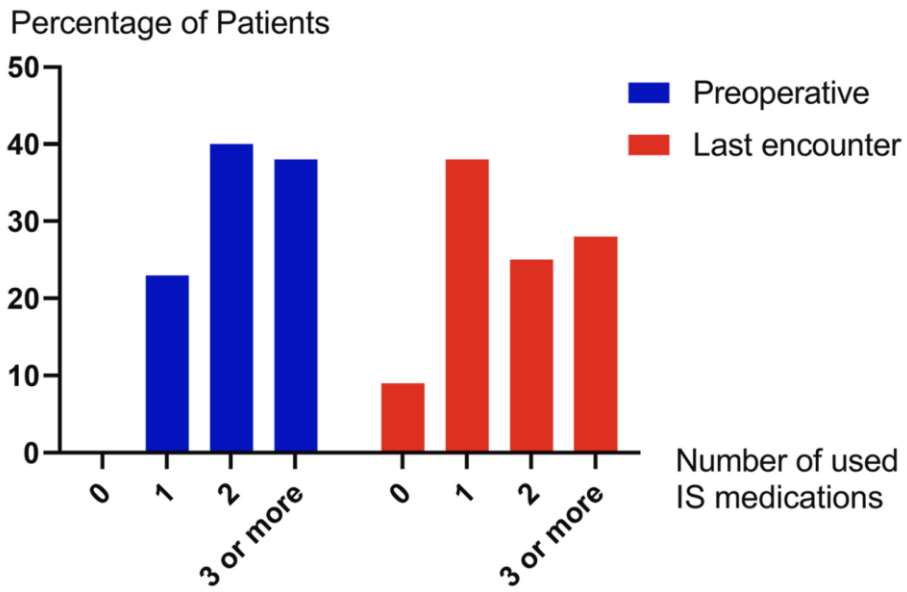



| Event | n (%) |
|---|---|
| Early complications (<30 d) | |
| Each of superficial incisional SSI, UTI | 2 (4) |
| Each of deep incisional SSI, pneumonia, sepsis, small bowel obstruction, anastomotic stricture, gastrointestinal leakage | 1 (2) |
| Reoperation | 2 (4) |
| Readmission | 3 (6) |
| Late complications (30 d to 2 yr) | |
| Marginal ulceration | 3 (6) |
| Each of small bowel obstruction, gallstone disease | 2 (4) |
| Internal hernia | 1 (2) |
| Reoperation | 4 (8) |

SSI = surgical-site infection; UTI = urinary tract infection.



| Medication | *N* | % |
|---|---|---|
| Prednisone | 58 | 65.17 |
| Hydroxychloroquine | 15 | 16.85 |
| Azathioprine | 6 | 6.74 |
| Methotrexate | 18 | 20.22 |
| Adalimumab | 8 | 8.99 |
| Mycophenolate | 14 | 15.73 |
| Tacrolimus | 15 | 16.85 |
| Tofacitinib | 2 | 2.25 |
| Hydrocortisone | 1 | 1.12 |
| Allopurinol | 1 | 1.12 |
| Ustekinumab | 1 | 1.12 |
| Cyclosporine | 4 | 4.49 |
| Montelukast | 8 | 8.99 |
| Etanercept | 6 | 6.74 |
| Belimumab | 1 | 1.12 |
| Leflunomide | 5 | 5.62 |
| Omalizumab | 1 | 1.12 |
| Sulfasalazine | 1 | 1.12 |
| Infliximab | 3 | 3.37 |
| Rituximab | 2 | 2.25 |
| Secukinumab | 1 | 1.12 |
| Certolizumab | 3 | 3.37 |

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ORIGINAL CONTRIBUTIONS

## Impact of Chronic Immunosuppression on Short-, Mid-, and Long-Term Bariatric Surgery Outcomes

Justin Maroun[1] · Ahmet Vahibe[1] · Meera Shah[2] · Manpreet S. Mundi[2] · Andres Acosta[2] · Travis J. McKenzie[1] · Todd A. Kellogg[1] · Omar M. Ghanem[1]

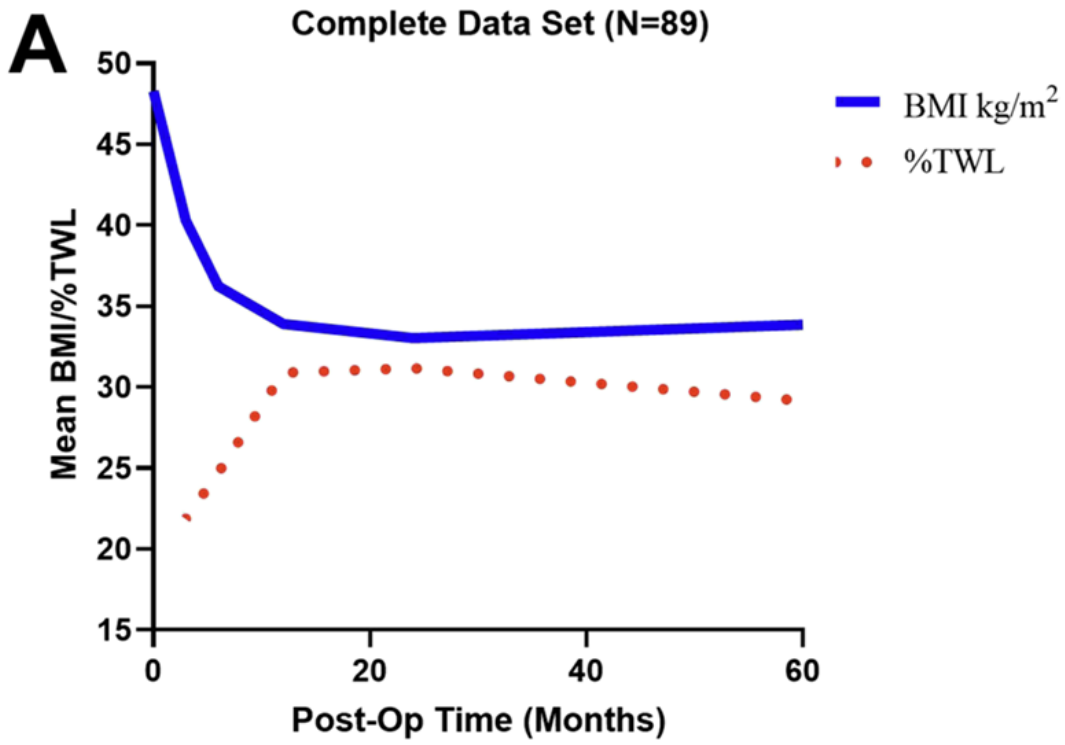


**Table 3** Frequency of early complications that occurred within 30 days of the bariatric surgery of the entire cohort and subgroup analysis of transplant patients

| Early complications < 30 days | *N* | % | Transplant *N* | Transplant % |
|---|---|---|---|---|
| Surgical site infection | 5 | 5.5 | 0 | 0 |
| UTI | 3 | 3.3 | 1 | 3.7 |
| Pneumonia | 1 | 1.1 | 0 | 0 |
| Acute kidney injury | 1 | 1.1 | 1 | 3.7 |
| Organ space infection | 1 | 1.1 | 0 | 0 |
| Sepsis | 2 | 2.2 | 0 | 0 |
| Splenic injury | 1 | 1.1 | 0 | 0 |
| Anastomosis revision | 1 | 1.1 | 0 | 0 |
| Total | 15 | 16.5 | 2 | 7.4 |

**Table 4** Frequency of late complications occurring > 30 days post bariatric surgery of the entire cohort and subgroup analysis of transplant patients

| Late complications | *N* | % | Transplant *N* | Transplant % |
|---|---|---|---|---|
| Small bowel obstruction | 3 | 3.3 | 0 | 0 |
| Anastomotic leak | 0 | 0 | 0 | 0 |
| Cholecystitis | 2 | 2.2 | 0 | 0 |
| Dumping syndrome | 1 | 1.1 | 0 | 0 |
| Internal hernia | 2 | 2.2 | 0 | 0 |
| Anastomotic stricture | 2 | 2.2 | 0 | 0 |
| Marginal ulceration | 3 | 3.3 | 1 | 3.7 |
| Total | 13 | 14.3 | 1 | 3.7 |

# Early Postoperative Outcomes of Primary Bariatric Surgery in Patients on Chronic Steroid or Immunosuppressive Therapy

Amin Andalib[1] · Ali Aminian[1] · Zhamak Khorgami[1] · Mohammad H. Jamal[1] · Toms Augustin[1] · Philip R. Schauer[1] · Stacy A. Brethauer[1]

**Table 4** Adjusted odds ratios of preoperative chronic use of steroid/immunosuppressant on 30-day postoperative outcomes

| 30-day postoperative outcome | SD OR (95 % CI) |
|---|---|
| Mortality | *6.85 (1.95–24.12)* |
| Morbidity | |
| Any | *2.15 (1.42–3.27)* |
| Major | *2.21 (1.29–3.79)* |
| Infectious | *2.20 (1.36–3.57)* |
| VTE[a] | 2.56 (0.77–8.55) |
| DVT | *3.71 (1.11–12.41)* |
| Bleeding | 2.17 (0.67–7.07) |
| Return to OR | 1.74 (0.88–3.46) |
| Unplanned readmission | 1.83 (0.76–4.44) |
| LOS >3 days | *1.60 (1.19–2.15)* |

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Original article

# Expanded indications for bariatric surgery: should patients on chronic steroids be offered bariatric procedures?

Jennifer A. Kaplan M.D., Samuel C. Schecter M.B.B.S., Stanley J. Rogers M.D., Matthew Y.C. Lin M.D., Andrew M. Posselt M.D., Ph.D., Jonathan T. Carter M.D.

| | Sleeve gastrectomy | | | Gastric bypass | | |
|---|---|---|---|---|---|---|
| | Steroid N = 385 (1.6%) | No steroid N = 23,413 (98.4%) | *P* value | Steroid N = 430 (1.1%) | No steroid N = 37,754 (98.9%) | *P* Value |
| Length of stay, days* | 2 (2–2) | 1 (1–2) | <.001 | 2 (2–3) | 2 (2–2) | <.001 |
| 30-day mortality | 2 (.5%) | 19 (.1%) | .004 | 4 (.9%) | 57 (.2%) | <.001 |
| Return to the operating room | 8 (2.1%) | 316 (1.4%) | .22 | 18 (4.2%) | 955 (2.6%) | .03 |
| 30-day readmission | 29 (7.5%) | 875 (3.7%) | <.001 | 47 (10.9%) | 2279 (6.0%) | <.001 |
| Any complication | 30 (7.8%) | 975 (4.2%) | <.001 | 43 (10%) | 2670 (7.1%) | .02 |
| Wound infection | 6 (1.6%) | 191 (.8%) | .11 | 8 (1.9%) | 645 (1.7%) | .81 |
| Pneumonia | 1 (.3%) | 66 (.3%) | .94 | 2 (.5%) | 184 (.5%) | .95 |
| Urinary tract infection | 4 (1.0%) | 128 (.6%) | .20 | 8 (1.9%) | 332 (.9%) | .03 |
| Venous thromboembolism | 4 (1.0%) | 103 (.4%) | .08 | 4 (.9%) | 165 (.4%) | .13 |
| Cardiac complication | 1 (.3%) | 16 (.1%) | .16 | 2 (.5%) | 62 (.2%) | .13 |
| Sepsis or shock | 5 (1.3%) | 90 (.4%) | .005 | 5 (1.2%) | 275 (.7%) | .29 |
| Unplanned reintubation | 1 (.3%) | 62 (.2%) | .99 | 4 (.9%) | 162 (.4%) | .12 |
| On ventilator>48 hours | 0 (0) | 49 (.2%) | .37 | 3 (.7%) | 110 (.3%) | .12 |
| Stroke | 0 (0) | 5 (.02%) | .77 | 0 (0) | 4 (.01%) | .83 |
| Bleed requiring transfusion | 7 (1.8%) | 227 (1.0%) | .09 | 8 (1.9%) | 669 (1.8%) | .89 |
| Renal complication | 1 (.3%) | 62 (.3%) | .99 | 4 (.9%) | 102 (.3%) | .01 |
| Serious complication | 14 (3.6%) | 430 (1.8%) | .01 | 26 (6.1%) | 1229 (3.3%) | .001 |

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ORIGINAL ARTICLE

## Predictors of marginal ulcer after gastric bypass: a systematic review and meta-analysis

Azizullah Beran[1] · Mohammad Shaear[2] · Saif Al-Mudares[3] · Ishna Sharma[4] · Reem Matar[5] · Mohammad Al-Haddad[1] · Marita Salame[4] · Ray Portela[4] · Benjamin Clapp[6] · Barham K. Abu Dayyeh[5] · Omar M. Ghanem[4]

| Risk factor (number of studies) | Effect size (95% CI) | *P* value |
|---|---|---|
| *Sociodemographic-related risk factors* | | |
| Age (5) | OR 0.97 (0.93, 1.02) | 0.25 |
| BMI (3) | OR 0.99 (0.97, 1.00) | 0.10 |
| Female gender (5) | OR 0.99 (0.49, 2.00) | 0.97 |
| *Comorbidity-related risk factors* | | |
| Diabetes mellitus (6) | OR 1.80 (1.15, 2.80) | 0.01 |
| | AOR* 1.15 (1.12, 1.19) | |
| Hypertension (5) | OR 1.06 (0.68, 1.64) | 0.81 |
| OSA (3) | OR 2.09 (0.59, 7.42) | 0.25 |
| *Helicobacter pylori* infection (3) | OR 4.97 (2.24, 10.99) | < 0.0001 |
| *Lifestyle-related risk factors* | | |
| Smoking (11) | OR 2.50 (1.76, 3.54) | < 0.00001 |
| NSAIDs use (8) | OR 2.43 (0.72, 8.21) | 0.15 |
| | AOR* 11.38 (3.96, 32.68) | |
| Alcohol use (5) | OR 1.15 (0.91, 1.46) | 0.25 |
| PPI use (5) | OR 0.44 (0.11, 2.11) | 0.34 |

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ORIGINAL ARTICLE

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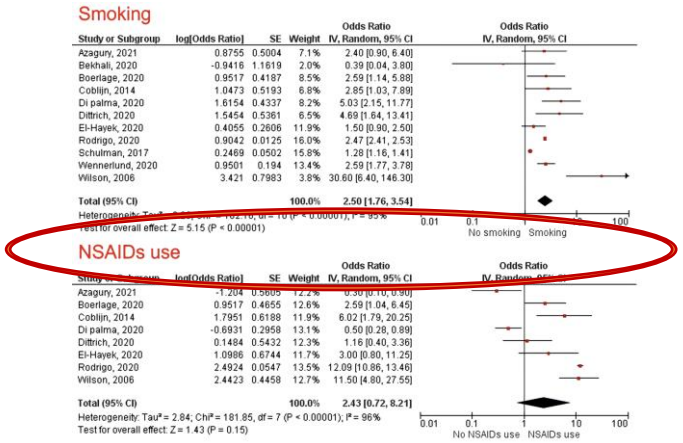


## Nonsurgical risk factors for marginal ulcer following Roux-en-Y gastric bypass for obesity: a systematic review and meta-analysis of 14 cohort studies

Liang, Yi MMed; Wang, Chunyun MMed; Yang, Lebin MMed; Yang, Kewei MMed; Zhang, Shulun MMed; Xie, Wenbiao MD

Author Information

*International Journal of Surgery* 110(3):p 1793-1799, March 2024. | *DOI:* 10.1097/JS9.0000000000001042

| Variables | P | NO.Studies | OR (95% CI) |
|---|---|---|---|
| **Patient−related factors** | | | |
| Smoking | | | |
| yes vs no | <0.001 | 9 | 3.491 (2.204 to 5.531) |
| Age (years) | | | |
| >40 vs =40 | 0.94 | 3 | 0.985 (0.670 to 1.448) |
| gender | | | |
| male vs female | 0.317 | 4 | 0.981 (0.947 to 1.016) |
| Alcohol consumption | | | |
| yes vs no | 0.334 | 4 | 1.421 (0.696 to 2.902) |
| **Comorbidity−related factors** | | | |
| Diabetes | | | |
| yes vs no | 0.003 | 6 | 1.812 (1.226 to 2.676) |
| Hypertension | | | |
| yes vs no | 0.668 | 5 | 1.113 (0.683 to 1.814) |
| OSA | | | |
| yes vs no | 0.509 | 3 | 0.850 (0.665 to 1.087) |
| **Drug−related factors** | | | |
| NSAIDs use | | | |
| yes vs no | 0.447 | 9 | 1.337 (0.632 to 2.826) |
| PPI use | | | |
| yes vs no | 0.117 | 5 | 0.345 (0.092 to 1.282) |
| Steroids use | | | |
| yes vs no | 0.004 | 3 | 2.804 (1.383 to 5.685) |

0.05 was considered statistically significant

0 1 2 4 6

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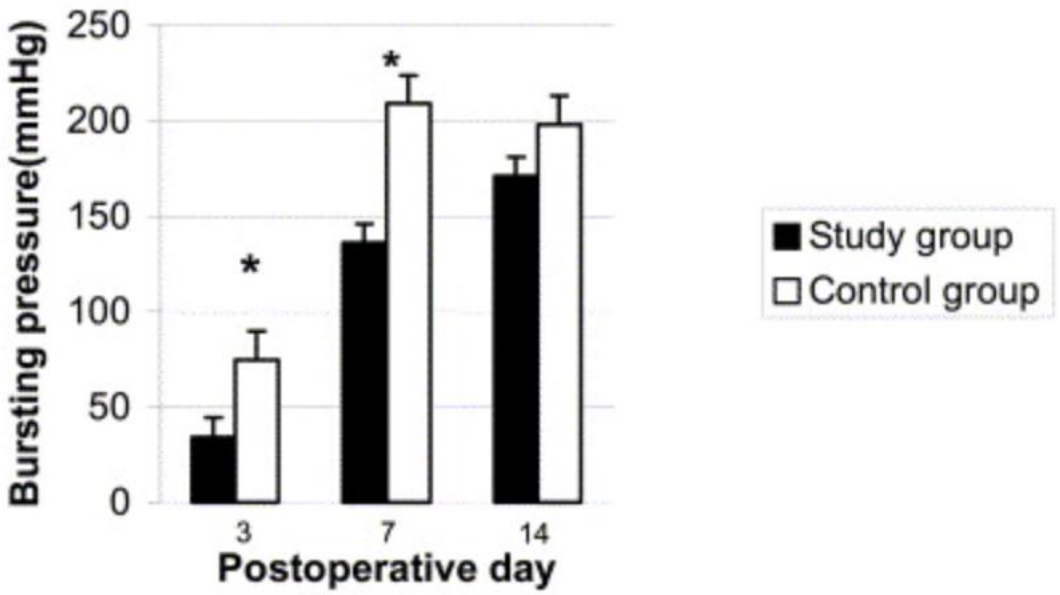
Gastrointestinal

# Mycophenolate Mofetil Impairs the Integrity of Colonic Anastomosis

Nicholas Sikas M.D., Ph.D, F.R.C.S (Ed), George Imvrios M.D., Ph.D, Dimitrios Takoudas M.D., Ph.D, Dimitrios Gakis M.D., Vasilios Papanikolaou M.D., Ph.D.






# Mycophenolate Mofetil-related Gastrointestinal Mucosal Injury: Variable Injury Patterns, Including Graft-versus-Host Disease-like Changes

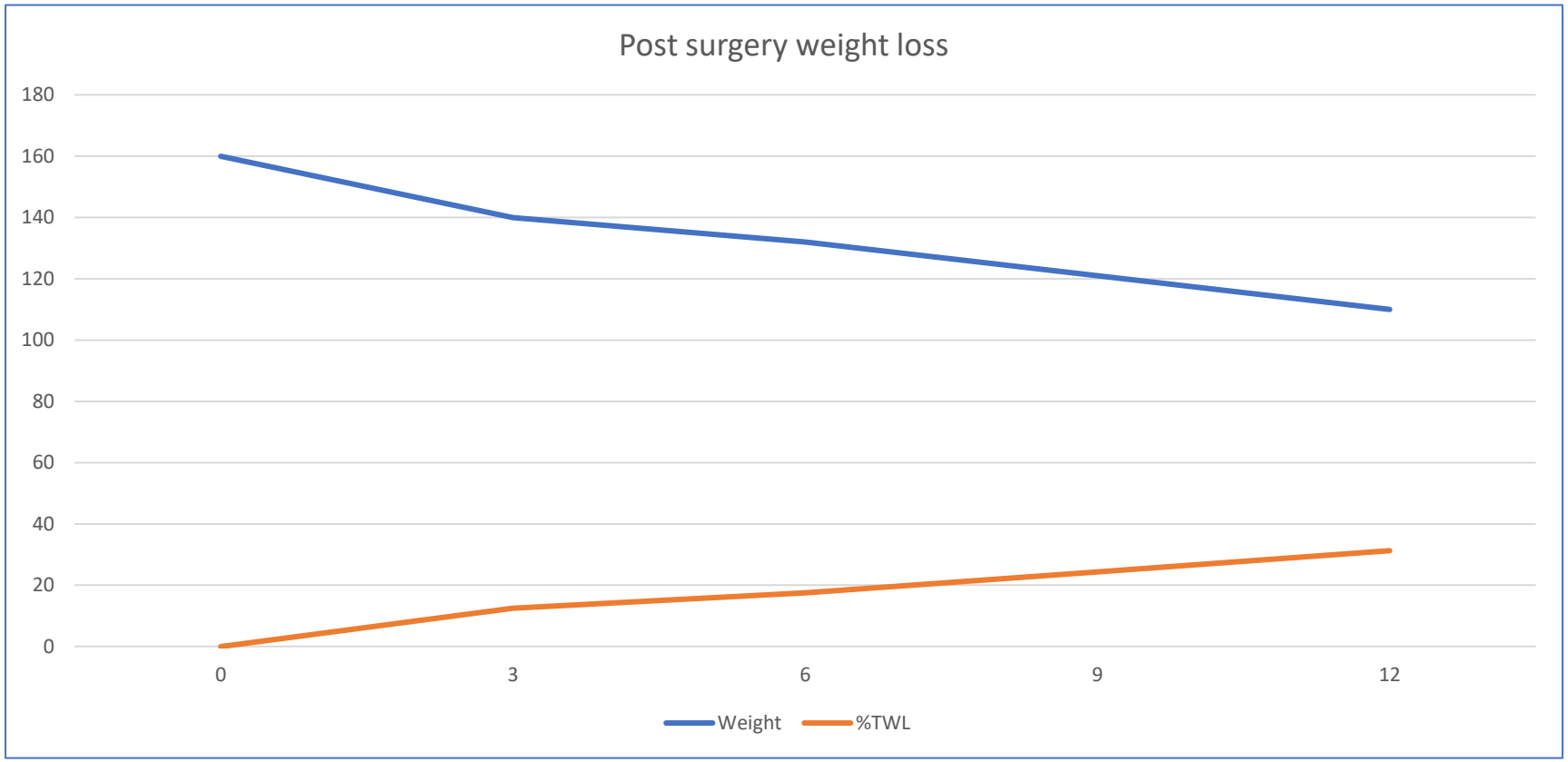
*Jeremy R. Parfitt, MD,* Saumya Jayakumar, MD,† and David K. Driman, MBChB, FRCPC**

**TABLE 1.** Pathologic Features of MMF in Colonic Biopsies

| | MMF Patients (n = 16) | Non-MMF Patients (n = 14) | |
|---|---|---|---|
| **Morphologic Feature** | **n (%)** | **n (%)** | ***P*** |
| Crypt architectural disarray | 12 (75) | 2 (14) | 0.001 |
| Erosions/ulcers | 4 (25) | 2 (14) | > 0.05 |
| Lamina propria edema | 9 (56) | 2 (14) | 0.017 |
| Increased lamina propria inflammation | 13 (81) | 3 (21) | 0.001 |
| Cryptitis | 6 (37) | 3 (21) | > 0.05 |
| Dilated damaged crypts | 7 (44) | 1 (7) | 0.024 |
| Crypt loss | 4 (25) | 2 (14) | > 0.05 |
| Increased crypt epithelial apoptosis | 9 (56) | 2 (14) | 0.017 |
| GVHD-like changes | 9 (56) | 2 (14) | 0.017 |
| IBD-like changes | 2 (13) | 0 (0) | > 0.05 |

GVHD indicates graft-versus-host disease; IBD, inflammatory bowel disease; MMF, mycophenolate mofetil

# Patient MM


Post surgery weight loss
180
160
140
120
100
80
60
40
20
0
0
3
6
9
12
Weight
%TWL

# Conclusions

MBS in this group is

- Potentially very high benefit
- Likely to be much higher risk (including mortality)
- Consider tertiary or quaternary referral/ centralized referral

Practical tips

- Know / learn about each specific agent
- Know your rheumatology colleagues
- Procedure selection bearing in mind the natural history of medication usage in this group