Postoperative wound healing delay in patients treated with leflunomide

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Introduction

- Global perioperative guidelines on leflunomide (LFN) have undergone significant revision in the last decade.
  - Therapy interruption & 'washout' with colestyramine now largely replaced by advice to continue treatment without interruption excluding certain surgeries (2022).
- Facility guidelines (2019) recommend;
  - Colestyramine washout for spinal surgeries with high risk of infection on Rheumatologist advice.
  - Therapy interruption of 7-14 days for operations with high infection or delayed healing risk.

Aim

Evaluate the preoperative management of LFN (continue, withhold, washout) and determine the rate of wound healing delay in elective surgery patients.

Methods

- A single site retrospective cohort study was conducted.
- LFN treated patients who underwent elective surgery between 2017-2022 were included.
- Digital records for inpatient LFN & colestyramine prescriptions were cross referenced with elective surgeries & retained for review.
- Rheumatologist review of all cases meeting the inclusion criteria was undertaken.
- Audit tool was designed, piloted and used for data collection.
- Data was analysed using descriptive statistics.

Case	LFN management	Co-therapy	Surgery type	Surgical approach
1	Ceased 7-14 days	Steroid JAKI	Hip joint	Open
2	Continued	Nil	Major head & neck	Open
3	Continued	Steroid TNFα	Vascular (lower limb)	Open
4	Ceased + washout 7-14 days	Steroid	Cardiothoracic	Open

Table 1: LFN treated cases with post-operative wound healing delay

Results

- 20 cases were included in the study (n=20).
- 12 underwent a therapy interruption, 4 of these with colestyramine washout (on Rheumatologist advice)
- 8 continued therapy.
- 14 underwent a high infection risk surgery.
- **Wound healing delay (Table 1):**
  - 4 cases were identified.
  - 2 with extended length of stay.
  - 2 with hospital readmission.
  - 3 were co-treated with a steroid long-term.
  - 2 were co-treated with a bDMARD.
  - 1 case ceased LFN 7-14 days pre-operation.
  - 1 case underwent washout.
  - 2 cases continued treatment in the perioperative phase.

Conclusion

- Within a small sample perioperative management of LFN was inconsistent.
- Perioperative Rheumatologist consult commonly recommended colestyramine washout.
- Surgical complication in LFN treated patients was observed in a proportion of cases.
  - Co-therapy with steroids and bDMARDS confound these findings.
- The findings have prompted the following actions:
  - Local guideline review.
  - TGA adverse event reporting.
  - Case report publication.
- Based on the findings, local adoption of the more relaxed national perioperative guidelines for LFN (2022) is debatable (Glennon).

Glennon, Vanessa Dr. "An Australian Living Guideline for the Pharmacological Management of Inflammatory Arthritis." *Australia & New Zealand Musculoskeletal Clinical Trials Network*, 11 Jul. 2022, app.magicapp.org/#/guideline/LqRV3n. Accessed 10 Nov. 2022.