Should prophylaxis with non-steroidal anti-inflammatory drugs (NSAIDs) be continued in patients with diabetes undergoing cataract surgery?

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Background

The risk of pseudophakic cystoid macular oedema (CMO) is known to be higher in patients with diabetes (up to 6.23%) compared to patients without diabetes (1.17%)[1]. National Institute for Health and Clinical Excellence (NICE) advise consideration of topical steroids in combination with NSAIDs in patients at higher risk of CMO. However, practice varies greatly across regions and there is no clear consensus or guideline regarding use of NSAIDs.

Aims

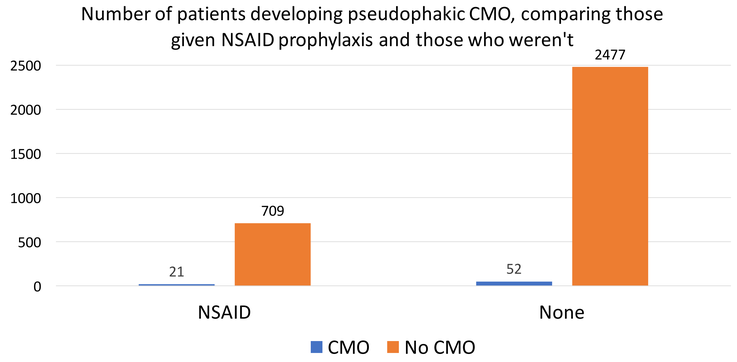
- Evaluate current practice in our hospitals
- Determine incidence of pseudophakic CMO amongst patients with diabetes

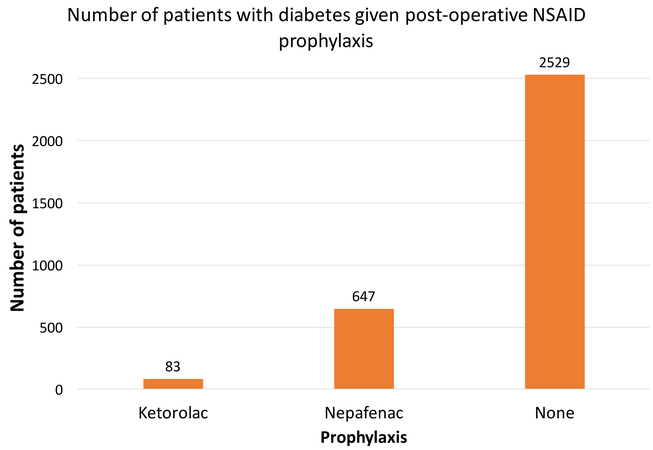
Methods

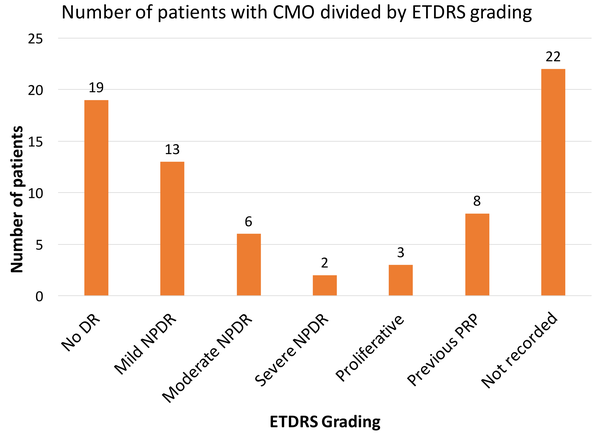
- Retrospective data collection
- Inclusion criteria:
  - All patients with diabetes undergoing cataract surgery between January 2014 and February 2019
- Exclusion criteria:
  - Patients with known pre-operative DMO
  - Anti-VEGF treatment prior to surgery
  - Planned combined procedures (e.g. ppv + phaco)
  - Pre-existing additional risk factors:
    - ERM, uveitis, previous retinal detachment, previous RVO, nAMD, previous PPV
  - DMO diagnosis determined after the procedure instead of CMO

Results

- Between January 2014 and February 2019, 20609 cataract operations were performed in 15088 patients.
- Out of these, 3259 cataract operations in 2451 patients met our inclusion and exclusion criteria.
- 77.6% of patients received no prophylaxis, 19.9% received nepefenac and 2.5% received Ketorolac.
- The incidence of CMO in patients who received NSAID prophylaxis was 2.96% vs 2.10% in those who did not receive prophylaxis (overall incidence 2.24%).
- There was no significant difference in rate of CMO by severity of retinopathy or grade of surgeon.







Discussion

In contrast to previous studies we found no significant difference in postoperative CMO incidence in patients treated with topical NSAIDs and no difference with retinopathy severity. The overall incidence of pseudophakic CMO in patients with diabetes was however very low in comparison to previous studies and we hypothesise our results may be skewed due to inaccurate and incomplete documentation of topical NSAIDs use on EPR. To address this, a change in documentation was implemented and a repeat audit is underway.

References

1.Risk Factors and Incidence of Macular Edema after Cataract Surgery: A Database Study of 81984 Eyes, C Chu et al, Ophthalmology, 2016; 123(2): 316-23