

Paper #70

Is Tranexamic Acid Useful in Reducing Knee Swelling and Improving Early Function Following Arthroscopic Meniscectomy?

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Summary:

TXA may be helpful in reducing swelling or improving recovery following arthroscopic meniscectomy

Abstract:

Background

Arthroscopic meniscectomy often results in rapid recovery and return to preinjury activities, however postoperative haemarthrosis and swelling can lead to pain, decreased range of motion and delayed return to work and leisure activities.

Tranexamic acid (TXA) is a lysine based inhibitor of plasminogen to plasmin which has gained popularity in arthroplasty surgery for reducing blood loss and more recently in anterior cruciate ligament reconstruction by reducing postoperative hemarthrosis, swelling, and pain while increasing function in the short term.

Aim

The goal of this study is to determine if there is a role for TXA in improving the short term results of swelling, pain and function following arthroscopic meniscectomy.

Method

We performed a prospective, double blinded, randomised controlled trial in 41 patients undergoing arthroscopic meniscectomy by comparing patients treated with IV TXA with those treated with a placebo (normal saline). All patients were treated by a single surgeon. Following randomisation either 1gram of TXA in 100ml of normal saline (active group) or 100ml of normal saline (placebo group) was given intravenously at induction prior to tourniquet inflation by the anaesthetist, who was the only person who knew which patients were given the active dose. Patients were followed up by blinded observer at days 3, 14 and 30 and range of motion (ROM), haemarthrosis grade, pain levels (visual analogue score, VAS), Lysholm and Tegner knee scores were recorded. A pilot study of 40 patients was considered satisfactory to gain significant power.

Results

Patient demographics were similar in both groups.

There was a non-significant improvement in ROM ($p=0.056$) and swelling ($p=0.318$) at 14 days in the active group. However there was a significant improvement in the Tegner score at 3 days ($p=0.0064$) in the active group..

Paper #70

Conclusions

This study has shown that giving TXA in routine arthroscopic menisectomy may improve early ROM and functional recovery. A larger study is required to confirm these results.