

Pok Oi Hospital

Decrease Blood Loss in Total Knee Replacement with Topical Tranexamic Acid

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Introduction

- Total knee arthroplasty
 - high transfusion rate of **11-21%**
- Tranexamic acid
 - anti-fibrinolytic agent
 - controlling bleeding in various surgical situations
 - studies have proven its efficacy and safety
- Purpose
 - to investigate the effect of **intra-articular** tranexamic acid injection in primary TKA



Methology

- **Retrospective** study
 - from July 2015 to Sep 2016 in Poh Oi Hospital
 - **296** patients recruited
- Tranexamic acid (TA) group (**n=154**)
 - intraarticular administration of **1.5 gram tranexamic acid** after closure of arthrotomy
- Control group (**n=142**)
 - all TKR patients six months before the implementation
- Same exclusion criteria to both groups



Results

Outcomes	Tranexamic acid	Control	P-value
Hb drop(gm/dL)	2.78	3.62	<0.001
Transfusion rate	5/154 (3.2%)	34/142 (23.9%)	<0.001
Length of stay (days)	9.1	11.2	<0.001
Drain output(ml)	199	276	<0.001



Conclusion

- This study supports the use of topical tranexamic acid in **reducing blood loss** in total knee arthroplasty.
- We consider this technique to be **safe** and **efficient** to our patients undergoing total knee arthroplasty.

