

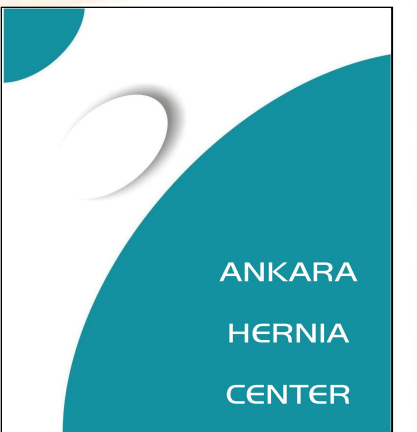
# The Value of Thromboembolism Prophylaxis in Patients Undergo Elective Unilateral Inguinal Hernia Repair

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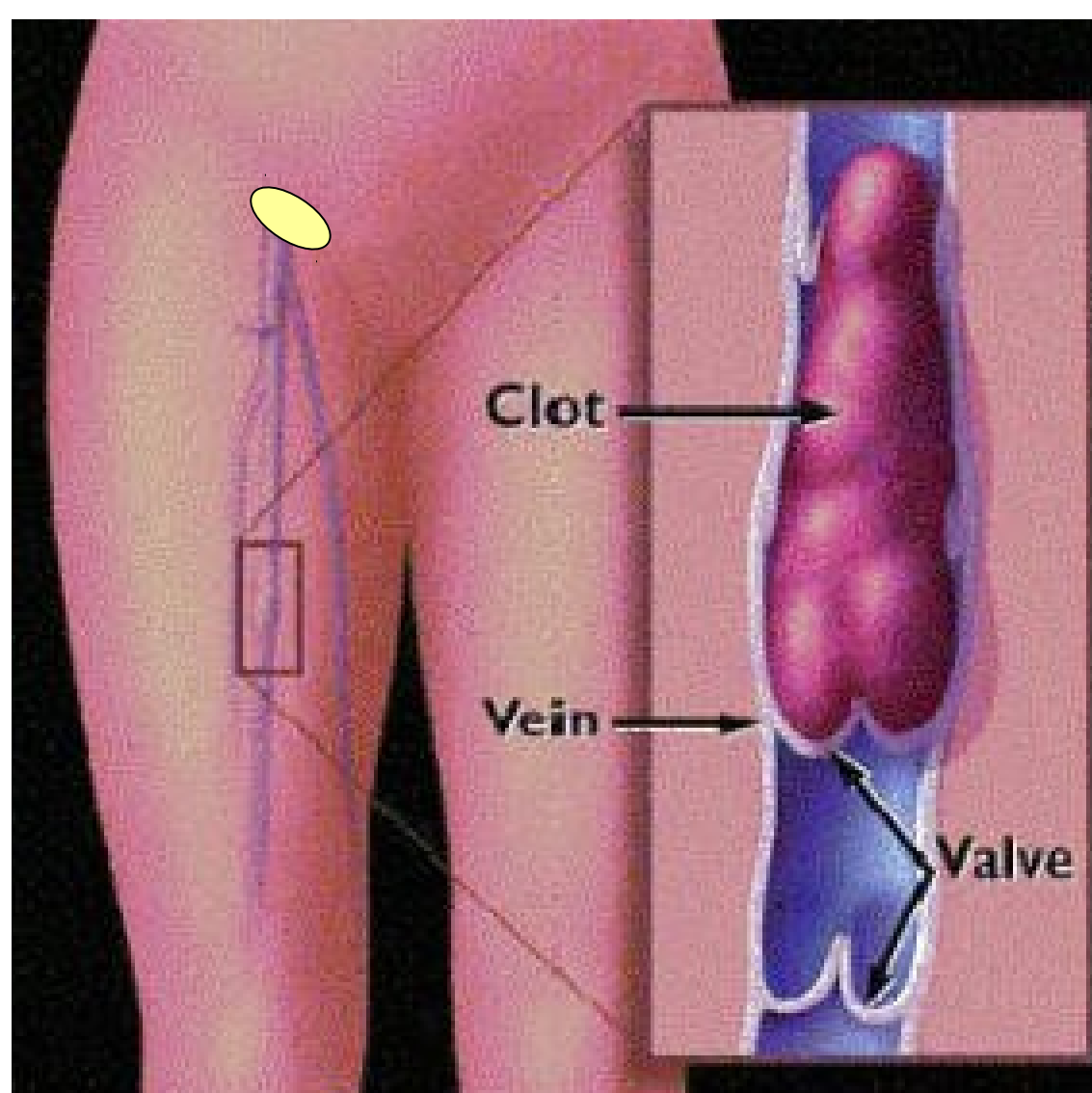
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## Introduction

Thromboembolism prophylaxis with low molecular weight heparin (LMWH) is widely used in patients undergo major surgery. Although it is not in routine use, there have been some reports in the literature on thromboembolism prophylaxis in minor surgical procedures like hernia repair. We compared the cases in which prophylaxis was given and not given before inguinal hernia repair in respect of postoperative thromboembolic events.



## Method and Patients

This retrospective study comprised the patients underwent elective inguinal hernia repair two separate centers in between January 2007 and January 2008. Lichtenstein repair was performed in all cases using a standard polypropylene mesh. The patient selection criteria were unilateral hernia, elective repair, and age older than 40. In the Ankara Hernia Center, ninety patients were routinely given prophylaxis with single dose 0.2 ml enoxaparin sodium just before the operation. On the other hand, 164 patients operated on in the 4th Surgical Department of Diskapi Teaching and Research Hospital did not received prophylaxis.

## Results

The age and sex characteristics of the groups were similar. There were no significant differences between the groups regarding concomitant disorders. No mortality was recorded. General morbidity and wound complication rates were similar. No thromboembolic events detected clinically in either groups within 30 days postoperatively.

## Literature Review

Thromboembolic events after inguinal hernia repair are very rare. A Danish group evaluated 2281 patients in a 20-year period and found only one non-fatal pulmonary embolism within 30 days of inguinal hernia repair. They did not recommend routine prophylaxis for thromboembolism in day-case hernia surgery (ref1). Despite this very low incidence, a questionnaire study from UK reported that only 10% of the British surgeons do not use any DVT prophylaxis at all in inguinal hernia repair (ref2). Another recent questionnaire study from Ireland stated that 54% of respondents followed a protocol in place for administration of LMWH in day case surgery including herniorrhaphy, anorectal, varicose vein and laparoscopic cholecystectomy (fer 3). A recent review from the view of anesthesiologists not recommended routine prophylaxis but suggested a routine screening for risk factors for venous thromboembolism and setting randomized controlled trials to establish institutional guidelines (ref4). Similarly, Anwar and Scott thought that one possible way to avoid problems is to risk stratify patients before thromboprophylaxis is given.

## Conclusion

The postoperative thromboembolic event rate in patients with no prophylaxis does not seem different from that in patients given prophylaxis for elective unilateral inguinal hernia repair. Stratifications of the patients according to risk factors for venous thromboembolism may be a reasonable way.

## References

1. Anwar S, Scott P. Current practice for anticoagulation prophylaxis in inguinal hernia surgery: a questionnaire survey. *N Z Med J.* 2003 Sep 12;116(1181):U583.
2. Riber C, Alstrup N, Nymann T, Bogstad JW, Wille-Jørgensen P, Tønnesen H. Postoperative thromboembolism after day-case herniorrhaphy. *Br J Surg* 1996;83:420-421.
3. Shabbir J, Ridgway PF, Shields W, Evoy D, O'Mahony JB, Mealy K. Low molecular weight heparin prophylaxis in day case surgery. *Ir J Med Sci* 2006;175:26-29.
4. Ahonen J. Day surgery and thromboembolic complications: time for structured assessment and prophylaxis. *Curr Opin Anaesthesiol.* 2007 Dec;20(6):535-9.



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