

**SYMPTOMATIC PELVIC HEMATOMA FOLLOWING TRANSVAGINAL RECONSTRUCTIVE PELVIC SURGERY: INCIDENCE, CLINICAL PRESENTATION, RISK FACTORS, AND OUTCOME**

Hypothesis / aims of study: To assess the incidence, clinical presentation, risk factors and outcome of symptomatic pelvic hematomas following transvaginal pelvic reconstructive surgeries.

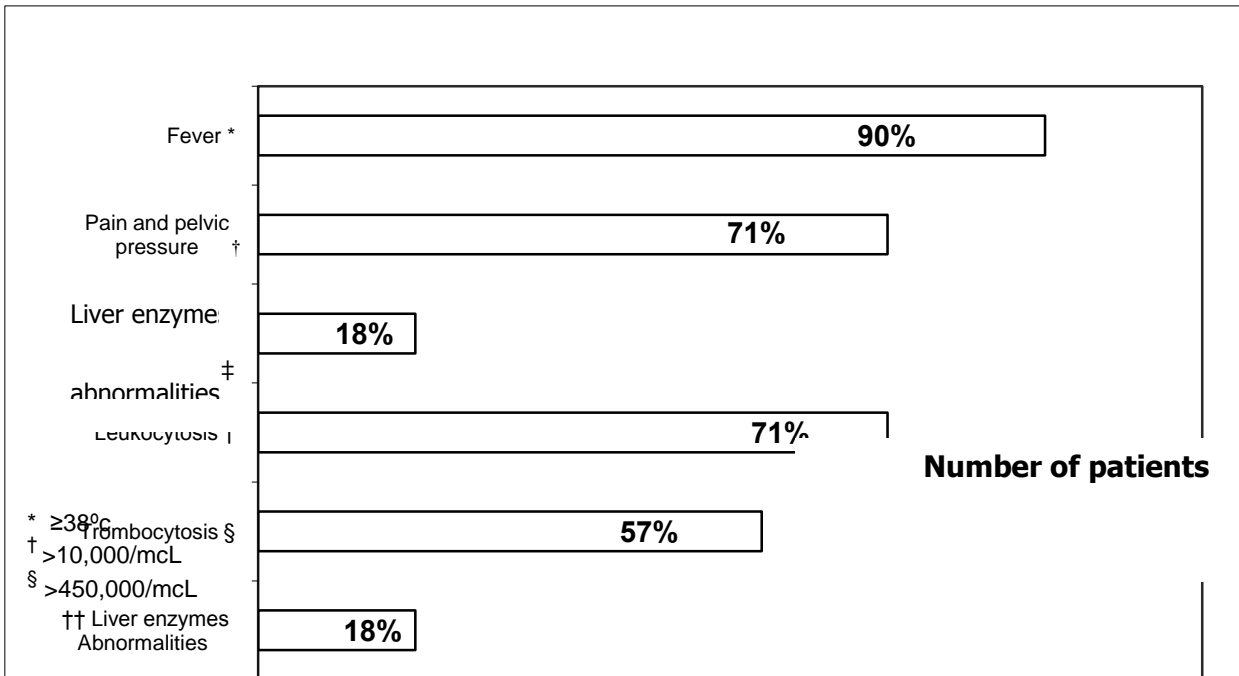
Study design, materials and methods: We reviewed medical records of all women undergoing transvaginal reconstructive pelvic surgery in our institution between January 2006 and July 2009 and identified those with postoperative symptomatic pelvic hematomas.

Results: 462 patients underwent pelvic reconstructive surgery, of whom 28 (6%) presented with symptomatic pelvic hematomas. All cases occurred after transvaginal hysterectomy. Twenty five (90%) presented with fever, 20 (71%) with pelvic pain and 5 (20%) with urinary retention. Symptoms occurred 8.5 ± 6 days postoperatively. All hematomas were diagnosed by ultrasound and most were located at the vaginal cuff (65%), and anterior vaginal wall (21%) with a mean volume of 590 ± 140 cc. Laboratory data included leukocytosis (71%), trombocytosis (57%) and elevated liver enzymes (18%). Nine patients (33%) required ultrasound-guided drainage of the hematoma which resulted in marked clinical improvement in all cases. Surgical outcomes were not significantly affected by this complication.

Interpretation of results: A symptomatic pelvic hematoma occurs in 6% of all patients undergoing transvaginal reconstructive pelvic surgery, and is closely related to transvaginal hysterectomy. Its clinical presentation includes fever, pelvic pain, leukocytosis, trombocytosis and occasionally liver dysfunction. The diagnosis is generally made by ultrasound. Most symptomatic hematomas are large (>500 cc) and are located at the vaginal cuff. Ultrasound-guided transvaginal drainage is required in one third of all patients and usually leads to fast recovery. Surgical outcome is generally unaffected.

Concluding message: symptomatic pelvic hematoma may occur in patients undergoing transvaginal reconstructive pelvic surgery, especially after transvaginal hysterectomy, and may necessitate surgical drainage. Long term surgical outcome, however is generally unaffected.

**Fig. 1:** Clinical findings in patients with symptomatic postoperative pelvic hematoma (n=28)



‡AST> 31 mg% and/ or ALT >34 mg%

#### References

1. 5. Khosla AH, Sen J, Chauhan M et al. Postoperative morbidity following vaginal hysterectomy for uterovaginal prolapse and its correlation with vault hematoma. J Obstet Gynecol India 2003;53:184-6.
2. 8. Thompson AJ, Sporstson AR, Farquharson RG. Ultrasound detection of vault haematoma following vaginal hysterectomy. Br J Obstet Gynaecol 1998;105:211-5.
3. 10. Dane C, Dane B, Cetin A, Yayla M. Sonographically diagnosed vault hematomas following vaginal hysterectomy and its correlation with postoperative morbidity. Infect Dis Obstet Gynecol. 2009;2009:91708.

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<b>Is this a clinical trial?</b>	<b>Yes</b>
<b>Is this study registered in a public clinical trials registry?</b>	<b>Yes</b>
<b>Specify Name of Public Registry, Registration Number</b>	<b>Ethics committee approval number: 821-2420</b>
<b>Is this a Randomised Controlled Trial (RCT)?</b>	<b>No</b>
<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>Yes</b>
<b>Specify Name of Ethics Committee</b>	<b>Ethics committee approval number: 821-2420</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>No</b>