

HOW COMMON IS INFECTION FOLLOWING VAGINAL SURGERY?

Hypothesis / aims of study

To determine the incidence of infections following vaginal surgery and how commonly reported the problem is.

Ascending spread of micro-organisms from the upper vagina is the primary cause of wound infection following vaginal surgery (1). The rate of infection following vaginal hysterectomy was 30-40% prior to the use of prophylactic antibiotics (2). The current rate of operative site infection following vaginal surgery is between 2.1 to 9.5% (3). Nevertheless, vaginal infection is one of the most common complications following vaginal gynaecological operations. The true incidence is not known to the gynaecologists, as most patients will present in the primary care setting.

Study design, materials and methods

This was a prospective study of women who had vaginal surgical procedures performed over a one year period, between October 2007 and September 2008, in our hospital. All women who had vaginal surgery performed were included in the study. All patients received prophylactic intra-operative antibiotics intravenously during the operative procedure. All patients had a questionnaire sent, within 6 weeks to 3 months of their surgery, with an explanatory letter and a pre-paid return envelope. The questionnaire asked about the incidence, timing and duration of complications post surgery. These complications include fever, urinary tract infections, vaginal discharge or any other complications that they experienced. It also asked about details of visit to their doctors or hospital, investigations done and treatment offered within 6 weeks post surgery.

Results

136 questionnaires were sent and there were 109 responses (80%). Out of the 109 women, 39 women had anterior repair, 30 had anterior and posterior repair, 21 had vaginal hysterectomy and 19 women had posterior repair performed. Post-operatively, 19 (17.4%) women presented with fever, 25 (22.9%) with urinary tract infection, 34 (31.2%) with vaginal discharge, and 17 (15.5%) with other problems to their doctors or attended the hospital (Table 1). 26 (23.8%) women had midstream urine samples sent for suspected urinary tract infection, out of this only 7 (6.4%) had proven infection by culture and sensitivity test which grew E. Coli in all of them. 25 (22.9%) women had high vaginal swabs taken for discharge / suspected infection and 10 (9.2%) women had positive result for vaginal infections (Table 2). Majority of the cultures were positive for streptococcus (Group B, Group G and Streptococcus mitis) followed by anaerobes - bacteroides and mixed anaerobes.

Interpretation of results

Overall 17 (15.6%) women had proven infection (UTI or vaginal infection), although 46 (42.2%) women were treated with antibiotics by their doctor or specialists. Out of 109 women, 54 (49.5%) women presented to their general practitioners and 26 (23.8%) women presented to the hospital doctors with their symptoms. Total incidence of post-operative infection was approximately 1 in 6 women.

Concluding message

The overall incidence of infection seems to be higher than the currently reported rates in the literature. Most of the infections were diagnosed by the patients' general practitioners (GPs) without the secondary care hospital specialists being aware of them. This might be due to lack of adequate reporting channels between primary and secondary care or lack of follow up appointment slots. It will be interesting to study whether post-operative prophylactic antibiotics treatment will further reduce the incidence of infection and its associated morbidity.

Table 1. Presenting symptoms of the patients (Total number of patients – 109)

Presenting symptoms	Fever	Symptoms of UTI	Vaginal discharge	Other symptoms*
No	19	25	34	17
%	17.4%	22.9%	31.2%	15.5%

*Other symptoms – vaginal discomfort, bleeding, deep vein thrombosis

Table 2. Investigations performed with results. (Total No – 109)

Investigations	MSU sent	Positive MSU	HVS sent	Positive HVS

No of patients	26	7	25	10
(%)	(23.8%)	(6.4%)	(22.9%)	(9.2%)

References

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2. Bolling DR, Plunkett GD. Prophylactic antibiotics for vaginal hysterectomies. Obstet Gynecol 1973; 41:689-92
3. Culver DH et al. Surgical wound infection rates by wound class, operative procedure and patient risk index. Am J Med 1991; 91(Suppl. 3B) 152-157

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<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	HUMAN
<i>Was this study approved by an ethics committee?</i>	No
<i>This study did not require ethics committee approval because</i>	It was a questionnaire based study with no intervention.
<i>Was the Declaration of Helsinki followed?</i>	Yes
<i>Was informed consent obtained from the patients?</i>	Yes