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## GYNAECOLOGY

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# Pre-Operative Vaginal Douching for Total Abdominal Hysterectomy in Thailand

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### ABSTRACT

**Objective** To assess the practice of pre-operative vaginal douching prior to total abdominal hysterectomy in major hospitals in Thailand.

**Design** Descriptive study.

**Setting** university, regional and provincial hospitals.

**Subjects** 80 major hospitals.

**Methods** Questionnaires and telephone inquiries.

**Results** Nearly all (79 of 80) of the hospitals surveyed practiced vaginal douching before total abdominal hysterectomy. Many antiseptic solutions were used including povidone-iodine, chlorhexidine, chlorhexidine with cetrimide and normal saline. Half (39 of 79) of the hospitals also performed vaginal painting immediately prior to surgery. The most common antiseptic used was povidone-iodine.

**Conclusion** Vaginal douching remains a routine pre-operative procedure for total abdominal hysterectomy in most Thai hospitals despite the lack of scientific evidence proving its effectiveness. Therefore, randomized, controlled trials should be conducted.

**Key words:** vaginal douching, total abdominal hysterectomy

Total abdominal hysterectomy(TAH) is a common procedure for the treatment of myoma uteri, ovarian tumor, cervical intraepithelial neoplasia of the cervix. In the U.K., in 1992, the estimated rate of hysterectomies by age 55 was about 20%.<sup>(1)</sup> There are no reports on the annual number of TAHs performed in Thailand.

When performing TAH, the vaginal canal is entered, however, the vaginal canal contains a large and varied suite of bacteria. It is believed that lowering the bacterial count in the vaginal canal will reduce the chances of post-TAH infection, therefore, vaginal

douching is recommended as a routine pre-operative procedure.<sup>(2,3)</sup> After an extensive review of MEDLINE and the Thai medical index, we could not find any studies documenting the effectiveness of vaginal douching to reduce post-TAH infections.

Our study was undertaken to assess the practice of vaginal douching in major hospitals in Thailand.

### Materials and methods

From January to March, 1999, questionnaires (or telephone inquiries) were sent to 80 major

hospitals around Thailand to ask about the practice of vaginal douching and the type of antiseptic solutions used in university, regional and provincial hospitals.

## Results

A complete response was received from all 80 hospitals.

Vaginal douching was practiced in all but one hospital (Table 1). Seventy of 79 (88.6%) of hospitals performed two vaginal douches per patient. The first douche was performed before bed the day before

surgery, and the second the morning of surgery. Only 11.4% (9 of 79) of hospitals performed a single vaginal douche (Table 2).

Many types of antiseptic solutions were used for vaginal douching, the most common being Savlon 1:100, the second most common povidone-iodine. Six of 79 hospitals used normal saline solution (Table 3).

Thirty-nine of 79 hospitals (49.4%) also performed vaginal painting immediately before the surgery. The most commonly used antiseptic was povidone-iodine (Table 4).

**Table 1.** Practice of pre-operative vaginal douching for total abdominal hysterectomy in various hospitals

Types of hospital	No. of hospitals	Vaginal douching	
		Yes	No
University	4	4 (100.0%)	0(0%)
Regional	25	24 (96.0% )	1 (4.0%)
Provincial	51	51 (100.0%)	0(0%)
Total	80	79(98.8% )	1(1.2 %)

**Table 2.** Frequency and timing of vaginal douching

Vaginal douching	No. of hospitals	Percentage
Single, before bed time	2	2.5
Single, in the morning of the surgery day	7	8.9
Double, before bed time and in the morning	70	88.6
Total	79	100.0

**Table 3.** Antiseptic solution used for vaginal douching

Antiseptic solution	No. of hospitals	Percentage
Savlon 1 : 100 (chlorhexedine+cetrimide)	29	36.7
Savlon 1 : 200 "	7	8.9
Savlon 1 : 800 "	3	3.8
Savlon 1 : 1000 "	7	8.9
Betadine (povidone-iodine)	9	11.4
Hibitane (chlorhexedine)	7	8.9
Normal saline	6	7.6
Dettol (1:200) (chloroxylenol)	5	6.3
Lactacyd (lactoserum+lactic acid)	2	2.5



Antiseptic solution	No. of hospitals	Percentage
Benzakonium (1:1000)	1	1.3
Bactyl 0.5%	1	1.3
KMnO <sub>4</sub>	1	1.3
Lactid acid	1	1.3
<b>Total</b>	<b>79</b>	<b>100.0</b>

**Table 4.** Antiseptic solution used for vaginal painting immediately before surgery

Antiseptic	No. of hospitals	Percentage
Betadine	30	76.9
Hibitane	6	15.4
Acriflavin	2	5.1
Dettol	1	2.6
<b>Total</b>	<b>39</b>	<b>100.0</b>

## Discussion

We conducted an extensive search of MEDLINE to find articles on the practice of pre-operative vaginal douching for TAH, but did not find any. Yet, the practice is believed to reduce post-TAH infection.

At our home base, Srinagarind Hospital, Khon Kaen University, about 300 TAHs are performed annually. Pre-operative vaginal douching is routine. Each patient receives two vaginal douches, one the evening prior to surgery, and one the morning before surgery. Savlon 1:1000 is the antiseptic used.

In our survey, pre-operative vaginal douching for total abdominal hysterectomy was performed routinely in nearly all (79 of 80) hospitals, except in one regional hospital.

The most commonly used douching agent, povidone-iodine is a high grade anti-bactericide; active against gram positive and negative bacteria, acid-fast bacilli, fungi and virus. To contrast, normal saline has no bactericidal activity, but the douche mechanically reduces vaginal flora.<sup>(4,5)</sup>

Amstey and Jones compared douches using povidone-iodine and normal saline solution in patients who underwent vaginal hysterectomy and they found no statistically significant difference in post-operative morbidity.<sup>(6)</sup>

Onderdonk et al. compared 0.04% acetic acid and 0.3% povidone-iodine for vaginal douching in normal subjects and found povidone-iodine significantly decreased vaginal flora for 24-48 hours after which flora returned to normal or higher than normal levels.<sup>(7)</sup>

The materials used for vaginal douching are not costly but the procedure is both time-consuming (which has a cost) and discomforting for the patient. The research conducted by Amstey and Jones and Onderdonk et al. suggests that the effectiveness of the practice is debatable. In this era of cost-consciousness and evidence-based medicine, only scientifically tested practices should be supported. Therefore, randomized controlled trials should be conducted to evaluate the effectiveness of vaginal douching as a pre-operative procedure for TAH.

## Acknowledgements

We would like to thank the Heads of the OB-GYN Departments of all the participating hospitals, for their kind response to our questionnaire.

The authors acknowledge the assistance of Mr. Bryan Hamman with the English presentation of the paper.

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