The Clinical Effect of Uterine Hyperflexion and Cervical Elongation in Cases of Pelviscopic Hysterectomy

F. Wierrani  
W. Grin  
M. Huber  
M. Olechowski  
W. Grünberger

Department of Gynecology and Obstetrics (head: Univ. Prof. W. Grünberger), KA Rudolfstiftung, Vienna, Austria

Key Words
Pelviscopic hysterectomy  
Anatomical uterine varieties  
Postoperative spottings  
Internal electrocoagulation of the cervical residue

Abstract
In a retrospective study of women who had undergone pelviscopic hysterectomies in the last 2 years, we focused on postoperative cyclic spotting. Preoperatively, a regular, cyclic menstruation and a premenopausal sexual hormone constellation were common to all patients. In the first group (n = 29), spotting occurred only in association with two uterine anatomical varieties: uterine hyperflexion and cervical elongation. The second group (n = 18), in which intraoperative internal electrocoagulation of the residual cervical envelope was performed, no spotting occurred despite the presence of uterine hyperflexion and cervical elongation. This procedure prevents the occurrence of postoperative spotting in cases of uterine anatomical varieties.

Introduction
Pelviscopic hysterectomy (pelviscopic supracervical hysterectomy with an intrafascial cylindroform enucleation of the cervix = CASH, classic abdominal SEMM hysterectomy, SEMM denoting serrate-edged macromor-celled) has become a frequent surgical procedure because of its adaptability (see the above-mentioned operations) and its success in maintenance of the pelvic floor [1-3]. Lüttges et al. [4] have shown, in a current study including 34 women, that punch surgery has to be radical.

However, in cases of anatomical uterine varieties such as uterine hyperanteflexion and cervical elongation, sub-radical excision of the isthmic glands is a possible therapeutic procedure.

Materials and Methods
Between March 1992 and December 1993, we performed 62 CASH operations. The uterus was removed supravaginally and mor-celled intra-abdominally by pelviscopy after cervical punching by means of a resection tool [1,2].

Forty-seven patients (mean age 46 years) were women with regular, cyclic menstrual bleeding and premenopausal sexual hormone constellation, preoperatively. At least one ovary had been spared during the operation. Two groups (A, n = 29, no intraoperative internal electrocoagulation
of the cervical residue; B, n = 18, intraoperative internal electrocoagulation of the cervical residue had been performed) were formed and followed up 3-24 months later with respect to postoperative cyclic spotting.

Table 1. Distribution of uterine anatomical varieties

Discussion

A B
29 18

a = Number of patients; b = hyperanteflexion and cervical elongation; c = isolated hyperanteflexion; d = hyperretroflexion and cervical elongation; e = isolated hyperretroflexion; f = isolated cervical elongation; g = postoperative cyclic spottings; A = group with spotting in association with uterine anatomical variations; B = group with no spotting after electrocoagulation.

Results

A total of 47 patients were investigated retrospectively. Preoperative ultrasound measurements revealed a mean cervical length of 4.19 ± 0.91 cm. In 6 cases, we found an elongation of the cervix (endocervical length > 2 SD above the mean cervical length). In 12 cases a hyperflexed uterus (cervix-corpus angle < 90°) was detected. The distribution of uterine anatomical varieties (uterine hyperflexion and cervical elongation) is shown in table 1.

In group A, spotting occurred in 4 cases and only in association with the uterine anatomical varieties of uterine hyperflexion and cervical elongation. In group B, postoperative spotting was not detected. Fisher’s exact test (two-tailed) showed a significant reduction of postoperative spotting in cases of uterine anatomical varieties when intraoperative internal electrocoagulation had been performed (p < 0.08).

Opponents of the CASH procedure cite the associated risk of cervical carcinoma with cervical residues. These objections, however, concern transabdominal supracervical hysterectomy without endocervical punching [5, 6]. Although over 95% of cervical carcinomas appear to originate in the transformation zone [4, 7], carcinomas of intracervical origin are much less common [7]. Lüttges et al. [4] have already demonstrated the possibility of radical cervical punch surgery.

Some of our patients with uterine hyperflexion and cervical elongation nevertheless demonstrated postoperative cyclic spotting. In these patients, electrocoagulation of the cervical envelope had not been performed. An explanation may be that the border of the cervical epithelium to the isthmic mucosa was displaced more deeply in the intracervical canal [8]. In over 10% of all related cases, the isthmic mucosa is involved in proliferation, desqua-mation and likewise in menstrual bleeding [9]. If, surgically, these glands are subtotally removed, postoperative cyclic spotting is possible.

The efficacy of CASH with respect to cancer prophylaxis may be undermined by the anatomical variations hyperflexed uterus and cervical elongation. In some cases of the former variation, the small neck-corpus angle does not allow radical cervical punching, in spite of intraoperative uterine extension. In the latter, the diameter of the portio punch determines both the rate of intraoperative complications along with the degree of radical removal of the isthmic mucosa. If the punch is too large, the danger of vascular lesions in the pelvic diaphragm increases, if too narrow, deep glandular tubes may be left behind.
Our retrospective survey clearly shows that radical punch surgery can be achieved in cases of uterine anatomical varieties by means of intraoperative internal electrocoagulation of the cervical envelope.

References

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Pelviscopic Hysterectomy and Anatomical Uterine Varieties