

Vaginal local therapy with Vagifem and Cicatridina in women after cervical and endometrial cancer treatment

Janina Markowska¹, Radosław Mądry¹, Natalia Fischer²

¹ Katedra Onkologii Akademii Medycznej im. K. Marcinkowskiego w Poznaniu (*Chair of Oncology, Poznan University of Medical Sciences*)

Head of the Clinic: Prof. Janina Markowska, MD, PhD

² NZOZ Klinika *Promienista* w Poznaniu (*The "Promienista" Clinic in Poznań, a non-public health care facility*)

Head of the Clinic: Zofia Fischer, MD, PhD

Przeгляд Menopauzalny 2007; 1:13-15

Summary

The symptoms of radiation vaginitis and atrophic vaginitis in women after cervical and endometrial cancer treatment are both a difficult therapeutic problem. Local therapy with Vagifem and Cicatridina is an extremely effective treatment. Moreover, Vagifem therapy is not connected with a risk of cancer recurrence.

Key words: kolpitis radiogenes, atrophic vaginitis, local therapy

Introduction

In female patients who undergo surgical and/or radiation treatment due to cervical and endometrial cancer, radiation-related reactions are often observed in many organs exposed to radiation, including intestines, urinary bladder and vagina [1-3].

The extent of these changes depends on a number of factors, including:

- Physical aspects of radiation, i.e. total dose, fraction dose, dose strength, volume of exposed tissues and radiation technique [4, 5];
- Biological factors, including age, hypertension, diabetes, anaemia, immunological condition, history of surgical interventions [6];

- Oestrogen deficiency as a result of menopause, surgical ovariectomy or loss of ovarian function following radiation [1,7].

Radiation-related changes are classified as early (during and up to 3-6 months from radiation) and late (after 3-6 months from radiation). Functioning of many organs, including vagina may be impaired severely. Complexity of factors, radiation and oestrogen deficiency lead to vaginal injuries, which are susceptible to infection and impair the quality of life [8, 9]. The consequences may include vaginal atrophy, fibrosis and stenosis [8, 9].

Nearly 80% of female patients who underwent radiation due to neoplastic lesions in reproductive organs suffer from sexual disorders. The problem of kolpitis radiogenes and atrophic vaginitis often leads to depressions in these patients [7,10].

Address for correspondence:

prof. dr hab. med. Janina Markowska, Katedra Onkologii Akademii Medycznej im. K. Marcinkowskiego w Poznaniu, ul. Łąkowa 1/2, 60-878 Poznań

Table I. The results of Vagifem and Cicatridina treatment in female patients following surgical treatment and/or radiation

	Endometrial cancer		Cervical cancer	
	Number of patients before treatment	Improvement	Number of patients before treatment	Improvement
Major lesions	15	13 (86.6%)	17	17 (100%)
Moderate and minor lesions	2	1	12	12 (100%)
Total	17	14 (82.3%)	29	29 (100%)

Vaginal walls can be repaired due to specific activity known as regeneration of vaginal mucous membrane and vaginal portion of cervix. Regeneration of vaginal walls is influenced by both oestrogens applied locally as globules or creams, which are readily absorbed through the vagina affected by colpitis radiogenes and hyaluronic acid, a polysaccharide that belongs to glucosaminoglycans – the main structural and functional element of the connective tissue [11,12,13].

Many authors suggest that HRT (including topical administration) does not reduce the recovery rate expressed as per cent in case of cervical and endometrial cancer [14,15].

Purpose

The assessment of local application of Vagifem and Cicatridina in female patients following surgical treatment and/or radiation due to cervical and endometrial cancer was the purpose of this work.

Material and methods

The total of 46 female patients underwent treatment: 29 patients aged 46-62 were treated for cervical cancer (18 – surgery + radiation, 11 – radiation only). 17 patients were diagnosed with major vaginal lesions, while in 12 patients the examination revealed moderate and minor ones.

17 female patients aged 62-73 were treated for endometrial cancer. The treatment consisted of surgery and radiation (brachytherapy alone was applied to 12 patients, while brachytherapy combined with external beam radiotherapy was used in 5 patients). 15 patients were diagnosed with major lesions, while 2 patients had moderate ones. All patients underwent radiation for over 6 months from application of local treatment to vagina.

Numerous small (ca. 3-5 mm), bleeding, ulcerative changes seen through speculum, producing bloody discharge, often gluing vaginal walls together, particularly in the upper part, as well as yellowish-whitish necrotic changes, particularly in vaginal stump were classified as major changes. Patients complained about vaginal pain, itching and dryness.

Vaginal mucosa smoothing conditions with abrasions that were bleeding only when touched were classified as moderate and minor changes. Patients experienced vaginal tenderness and dryness.

The treatment began with Vagifem (25 µg of 17β-estradiol) administered intravaginally in the mornings for 14 days and 1 globule of Cicatridina (5 mg of hyaluronic acid) administered in the evenings for 14 days.

During the second step of treatment the drugs were administered in the evenings for 2 months: Vagifem twice a week and Cicatridina also twice a week.

Subsequently, Vagifem was administered intravaginally once every 5 days, in the evenings, and Cicatridina was administered on the day following the administration of Vagifem. This dosage regimen was continued for one month.

Treatment results were usually assessed after ca. 3.5 months.

In case of bacterial vaginosis, patients were also administered Sterovag.

Results and discussion

The improvement was defined as withdrawal of conditions and the absence of ulcerations and extravasations in speculum examination, as well as the absence of vaginal walls gluing together and vaginal dryness.

Vaginal changes resulting from brachytherapy and the loss of ovarian function caused by surgical intervention are a major therapeutic problem. Apart from pain, dryness and itching, which make sexual intercourse impossible, they are another factor that impairs the quality of life. The patients also fear that perceptible changes, which include spotting, may be a signal or a symptom of neoplasm recurrence, and this promotes depression. Local application of Vagifem is known for its efficacy in terms of the effect on vaginal atrophy. The extent of systemic absorption is minimal and thus it is not connected with the risk of oestrogen affecting other organs, including the mammary gland. Hyaluronic acid regulates proinflammatory cytokines secretion by way of binding to receptors (hyaladherins), facilitating the inflow of cells regenerating the damaged mucous membrane. It also reduces vaginal dryness due to its potent lubricating properties.

References

1. Muscari Lin E, Aikin JL, Good BC. Premature menopause after cancer treatment. *Cancer Pract* 1999; 7:114-21
2. Gerdin E, Cnattingius S, Johnson R. Complications after radiotherapy and radical hysterectomy in early-stage cervical carcinoma. *Acta Obstet Gynecol Scand* 1995; 74: 554-61.

3. Maier U, Ehrenbock P, Hofbauer J. Late urological complications and malignancies after curative radiotherapy for gynecological carcinomas: a retrospective analysis of 10,709 patients. *J Urol* 1997; 158: 814-7.
4. Urbański K, Klimek M. Radioterapia w raku szyjki macicy. *Ginekologia Onkologiczna T 1. Markowska J (red.). Urban and Partner, Wrocław 2006; 626-61*
5. Perez CA, Breaux S, Bedwinek JM, et al. Radiation therapy alone in the treatment of carcinoma of the uterine cervix. II. Analysis of complications. *Cancer* 1984; 54: 235-46.
6. Berek JS. *Hacker NE Practical Gynecologic Oncology. 4th ed. Lippincott Williams and Wilkins. Philadelphia 2005.*
7. Grigsby PW, Russell A, Bruner D. et al. Late injury of cancer therapy on the female reproductive tract. *Int J Radiat Oncol Biol Phys* 1995; 31:1281-99.
8. Jeremic B, Djuric L, Mijatovic L. Severe late intestinal complications after abdominal and/or pelvic external irradiation with high energy photon beams. *Clin Oncol* 1991; 3:100-4.
9. Jensen P, Groenvold M, Klee M, et al. Longitudinal study of sexual function and vaginal changes after radiotherapy for cervical cancer. *Int J Radiat Oncol Biol Phys* 2003; 56: 937-49.
10. Maciejewski B. *Tolerancja zdrowych tkanek w radioterapii nowotworów. Odczyny popromienne. Centrum Onkologii Instytutu im. Marii Skłodowskiej-Curie, Gliwice 1991.*
11. Rzepka-Górska I. *Hormonalna terapia zastępcza w raku szyjki macicy. W: Rak szyjki macicy. Markowska J (red.). PZWŁ, Warszawa 1999; 207-16.*
12. Chen WY, Agatangelo G. Function of hyaluronan in wound repair. *Wound Repair Regen* 1999; 7 (2): 79-89.
13. Gawrychowski K. *Radioterapia i chemioterapia raka pochwy. W: Ginekologia onkologiczna Tom 1 Markowska J (red.). Urban and Partner, Wrocław 2006; 495-8.*
14. Gadducci A, Fanucchi A, Cosio S, et al. Hormone replacement therapy and gynecological cancer. *Anticancer Res* 1997; 17: 3793-8.
15. Parazzini F, La Vecchia C, Negri E. et al. Case-control study of oestrogen replacement therapy and risk of cervical cancer. *BMJ* 1997; 315: 85-8.
16. Rechberger T, Monist M. *Zastosowanie terapeutyczne kwasu hialuronowego w ginekologii. Ordynator Leków 2005; 5 (11-12): 49-50.*