ENDOMETRIAL CANCER EPIDEMIOLOGY AND PREVENTION IN FEDERATION OF BOSNIA AND HERZEGOVINA, B&H

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Abstract

In Federation of Bosnia and Herzegovina during 2002 a total of 67 cases of endometrial cancer (ICD 10th Revision Code C54) were registered among female population older then 15 years (1 per 10 000 population). Nine women were diagnosed with non specific malignant uteri neoplasia (C55) - without clarifying if that was cervix or corpus uteri located cancer, but assumption is that these cancers are actually endometrial cancer. Majority of cases are older then 50 years, 48 of them (71.6%), while 29 (28.4%) are from 15 to 49 years old. During 2000 about 189 000 new endometrial cancer cases were reported with 44 700 endometrial cancer deaths in the World. In this paper we presented geographycal distribution of cases registered in FB&H, as well as leading risk factors, protective factors and prevention and possibilities for screening methods.

Key words: endometrial cancer, incidence, incidence rate, risk factors and prevention, FB&H

Introduction

Incidence

During 2000 about 189 000 new cases of endometrial cancer with 44 700 deaths of the same disease were reported all over the World. Incidence rates are almost three times higher in developed comparing to developing countries. Endometrial cancer is on the fifth place of all female common cancer locations. The highest endometrial cancer incidences in Europe are registered in Check Republic and Slovakia, and the lowest is in Greece.
Endometrial cancer incidence in developed world reported significant increase during 1970s after introduction of subsistent estrogen treatment, but in 1980s that trend stabilized.

Risk factors

All factors related to exposure to estrogens have increasing risk of development of endometrial cancer. The most predominant are:

- menarche before 12th year or menopause after 50th year of life,
- infertility,
- adiposity,
- animal fat predominant in diet,
- tamoxifen therapy,
- estrogenic substitute treatment without progesterone has 10 times risk increase which remains even 10 years after discontinuation of treatment,
- combined substitute hormone therapy slightly increase endometrial cancer risk,
- breast cancer or ovarian cancer (joint risk factors),
- pelvic radio treatment,
- Diabetes mellitus type 2.

Genetic factors are involved in about 6% of total number of endometrial cancer cases. High endometrial cancer risks have women carrier of mutations linked to heredity non lipozal colon cancer (HNPCC).

Endometrial cancer in Federation of Bosnia and Herzegovina

In Federation of Bosnia and Herzegovina (one of the two entities of Bosnia and Herzegovina) during 2002 a total of 67 cases of endometrial cancer (ICD 10th Revision Code C54) were registered among female population older then 15 years (registered rate 0.68 per 10 000 population) and 9 women were diagnosed with non specific malignant uteri neoplasia (C55) - without clarifying if that was cervix or corpus uteri located cancer, but assumption is in that case that these cancers are actually endometrial cancer. Majority of cases are older then 50 years, 48 of them (71.6%), while 29 (28.4%) are from 15 to 49 years old. According to the data gathered from Woman's health services during 2002 endometrial cancers were on the 4th place (Table 1.) with total of 67 cases treated. The highest number of cases was registered in Tuzla and West Herzegovina Cantons, eleven cases each, while the highest incidence rate was in West Herzegovina - 3.23/10000. De-

tailed geographical distribution in FBiH was presented in Table 2. It is relevant to mention that Cancer register for FB&H has been in a process of re-establishing after more then 12 years. Extended data on any cancer related diseases are not yet easy to obtain due to the high internal and external migration still in place in Bosnia and Herzegovina, and duplication or even triplication notification of any cancer case. New register, unlike the old one, will have mandatory unique identifier for each notification, and it will be supported by a computer processed data base, so notification multiplication will be avoided.

Protective factors and prevention

Some factors can help in endometrial cancer protection such are regular intake of oral contraceptives and soy and fiber rich diet. Maintaining of normal weight, optimal intake of oral contraceptives and hormone substitutes, knowledge of risk factors and early symptoms (e.g. abnormal hemorrhage from uterus) is very important among women in menopause.

According to the American Cancer Society (ACS) Guidelines for Early detection of endometrial cancer from 2003 main recommendation for women in postmenopausal age at average risk is to informed about endometrial cancer risks and symptoms as well as to see their physician after any unusual uteri hemorrhage.

Screening methods for diagnostics and prevention

The most common diagnostics procedure in diagnosing endometrial cancer is biopsy. Positive predictive value of endometrial biopsy among women at average risk and asymptomatic clinical signs according to the world-wide experience shows low, while it is high among women at specific risk (risk factors found in anamnesis). That is the main reason why it will be reasonable that that cohort should be considered for screening methods of this kind.

Table 1. Leading gynecological cancers/malignant neoplasia in Federation of B&H during 2002 according to provides services in Womans health care dispansers

Rank	Cancer location	Number of Cases	Incidence rate (per 10000 population)
1.	Cervical Cancer (C53)	166	1.69
2.	Cervical Cancer in situ ((D09)	160	1.63
3.	Brest Cancer (C50)	153	1.55
4.	Endometrial Uteri Cancer (C54)	67	0.68
5.	Ovarian Cancer (C56)	43	0.44
6.	Brest Cancer in situ (D05)	25	0.25
7.	In situ other gynecological cancers (D07)	21	0.21
8.	Vulvo-vaginal Cancer (C51 -52)	12	0.12
9.	Non specific m. uteri neoplasia (C55)	9	0.09

Table 2. Geographical distribution of Endometrial Cancer (C54) and Non specific Malignant Uteri Neoplasia (C55) cases and Incidence rates in Federation of Bosnia and Herzegovina

Canton	Number of Cases (C54 + C55)	Incidence rate (per 10000 population)	Female population (>15)
Una Sana Canton	2 + 0	0.18 + 0	113,115
Posavina Canton	0 + 0	-	20,058
Tuzla Canton	11 + 7	0.51 + 0.32	216,142
Zenica Doboj Canton	9 +1	0.56 + 0	162,000
Bosnian Podrinje Canton	3 + 0	1.81 + 0	16,608
Middle Bosnia Canton	9 + 0	0.95 + 0	94,608
Herzegovina Neretva Canton	10 + 0	1.01 + 0	98,756
West Herzegovina Canton	11 + 0	3,23 + 0	34,000
Sarajevo Canton	7 + 1	0,39 + 0,06	179,519
Herzeg Bosnia Canton	5 + 0	1,27	39,317
Total FB&H	**67 + 9**	**0,68 + 0,09**	**984,163**

Transvaginal ultrasound (TVU) is use as a non invasive screening method for detection of endometrial changes. However, it has not yet determined what endometrial width has high sensitivity and high specificity. Endometrial width varies depending of pre- or post- menopause, eventual substitute hormone therapy (estrogen versus combine), tamoxifen treatment… Because of all of the above mentioned transvaginal ultrasound does not meet sufficient specificity level to become a successful screening method. International collaborative group for heredity non lipozal colon cancer (HNPCC) recommends colonoscopy and curettage , transvaginal ultrasound and determining of CA-125 in sera for women at high risk once a year after they rich 30. For women which are not in reproductive age and being operated because of a colon cancer should be offered to simultaneous hysterectomy and ooforectomy. Evidences on positive influence of screening methods for women with HNPCC and detection of endometrial cancer in an early stage for longer survival age all over the world are not confirmed, especially comparing to an early diagnosed symptomatic endometrial cancer.

Our country currently is undertaking a reform of a health care sector. Transition from health care system based on primary health care is reforming to a family medicine care and protection. This reform should be take place by 2010, so it is planned that health protection and prevention measures in woman's health protection will meet similar measures recommended in other countries (annual gynecological examination, biopsy and endometrial cytological analysis with transvaginal ultrasound among women at higher risk, …) If all screening and diagnostics techniques and methods be undertaken on time, incidence and especially mortality rate of endometrial cancer should decline with time.

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