

## Comment

Oncology is one of the most dynamic developing branch of medicine. Each medical specialty is combined more or less with the cancerous problems, each of them has its own specific nature, tissue and organ characteristics. There are some medical specialties, where popularizing and improvement of chemotherapeutic guidelines or introducing the cumulating therapy led to a crucial improvement of the treatment effectiveness. The treatment efficiency of Hodgkin's disease identified to single figures at the beginning of the XX century states nowadays to more than 90%. Almost the same effectiveness was gained in treatment of non-Hodgkin lymphomas. There was also a huge progress in the effectiveness of breast cancer treatment although the main meaning here was popularizing of the early diagnosis methods and as a consequence a higher percentage of treatment in the clinically lower-advanced changes. The main progress we observe involves popularizing of genetic tests as a cancer risk assessment of large intestine, breast and ovary. The large amounts of capital expenditures put to basic tests led to the better understanding of cancer biology or means in clinical trials – hundreds of new chemotherapeutics, immunotherapy, introducing different combinations and schemas of treatment contributed to increased rates of the cure of many cancer diseases. Unfortunately, there are still organs and diseases which stay less cured or just uncured despite of the great progress of knowledge. The good example of such a treatment could be the gall bladder cancer, some kinds of lung cancer, central nervous system tumors, generalized melanoma and in gynecology – all tumors clinically advanced – relatively rare endometrial cancer, more often cervical cancer, vulval cancer but most of all ovarian cancer. Ovarian cancer not giving any previous clinical symptoms are diagnosed most often in a very advanced cancer process. Ovarian cancer, even in a very well defined group of the very high cancer risk who are carriers of BRCA1 or BRCA2 gene mutation, despite of performing the systematic vivid exams (transvaginal ultasonography with a Doppler blood flow assessment) and taking biochemical markers (CA125 and lately HE4), in more than 50% a cancer is diagnosed in the third stage of a clinical severity, which is in the stage of intraperitoneal dissemination. As far as chemotherapy has made a great progress in a treatment of germinal ovarian cancer, tumors which twenty years ago were a sentence for the young women, today they are permanently cured in the majority. We cannot perform such relation for the most often tumor – ovarian cancer. There were many raised hopes with completely new and modified chemotherapy and the immune system stimulating drugs. Popularizing of the most modern drugs, possibility of chemosensitivity of cancer cells assessment, introducing better and more expensive non standard chemotherapy make costs of treatment higher and with the minimal influence on the long-treatment results.

As regards tumors with bad prognosis, diagnosed in the very advanced clinical stage or non sensitive to radio and chemotherapy, the base meaning is in detecting pre-cancerous changes. Removing of these changes minimize or even eliminate the risk of cancer developing. An example of these kind of movements is colonoscopy with prophylactic excision of the colon polyps or pap smear assessment which allow to recognize and treat dysplastic changes.

Cancer of the vulva is a disease affecting older women and although it grows very slowly, it is diagnosed very late as a noticeable mass with affected lymph nodes. The surgical treatment involves vulvectomy and bilateral lymphadenectomy, which is very disabling. First of all, it is a very long operation, which can put a great strain on the older woman who is most often not in good general condition. Secondly, the wide postoperative wound very rare can heal by confluence, it often splits, festers and heals after very long weeks by granulation. Often the biggest problem is wound healing after groin lymphadenectomy. The more precisely lymphadenectomy is done and the more lymph nodes are removed, there is the higher risk of developing of lymph reservoir in a subcutaneous tissue. Taking into consideration the fact, that groin nodes connect a run of lymph from the vulva and the lower limb, the volume of lymph can become quite large. These reservoirs are similar to those which appear after mastectomy with lymphadenectomy. The problem is in keeping the groin area in good hygienic conditions by not quite agile women. It can cause the wrong postoperative wound healing. There is completely different extent of operation than in case of diagnosis of the pre-cancerous changes. There is possibility to perform a restricted operation without the necessity of lymphadenectomy. Surgery much less disabling, but as it was showed in analysis of Bytom Site fully effective. Despite the fact that most of vulval cancers are preceded by the precancerous changes, the diagnosis at this stage is made very rare. These changes are or clinically mute or give very non specific effects, which can be treated for many months or even years as the inflammatory changes. Women rarely go to the doctor complaining on such changes, so that is why a diagnosis is made mostly late, at the stage of symptomatic, disintegrated, festering tumor of vulva.

Cervical cancer is also preceded by average time of a dozen years of precancerous changes development. It has been nowadays 70 years since Georgiou Nicholas Papanikolaou showed his studies on the possibility of cancer and precancerous changes diagnosis on basis of exfoliated epithelial cervical cells assessment. During

these 70 years there were many modifications of pap smear introduced and it became the main arm in the fight with cervical cancer in the whole world. In the countries, where the pap smear test became common as a screening test performed in sexually active women, the problem of invasive cervical cancer significantly decreased. Officially, many scientific associations recommend performing pap smear in group of low cancer risk every three years. In the high risk group (continuous infection of oncogenic type of human papillomavirus, HIV infection, cervical dysplasia, many sexual partners) it is recommended to take the smear every year. In Poland we can divide women into two main groups: these, who make three tests a year and these, who the last pap smear took when they were pregnant but nowadays they are grand mums. Unfortunately, the second group is big enough that Poland is still at the end of effectiveness of cervical treatment in Europe.

In the classical diagnostic and therapeutic schema when a cytooncological test is incorrect there is a recommendation to perform a colposcopy, a biopsy and excochleation of cervical canal. On basis of clinical stage, histological examination, patient age, obstetrics history, procreation plans the optimal destructive therapy is discussed. In the last years the comprehensive approach to an issue was considerably modified after showing that precancerous changes of cervix can be caused by many different types of Human Papillomavirus (HPV), but the cervical cancer is caused by continuous HPV infection of the one of the high oncogenic potential type. Many changes like cervical dysplasia, especially in young women are connected with infection with low oncogenic risk virus and in these cases there is no need to provide destructive therapy, mainly because these changes cure themselves. This fact could be the reason of disproportion among smear diagnosis and histological crosscheck which was done by Department of Obstetrics, Women Diseases and Gynecological Oncology in Bródnowski Hospital. That is why in the case of incorrect cytooncological test it is commonly recommended to test for DNA HPV type in cervical smear or appearance of RNA which shows continuous infection. Finding a genetic oncogenic virus evidence determines classical diagnosis and eventually operative intervention.

Excluding of oncogenic HPV infection minimize a risk of cervical cancer. It is very possible, that in the nearest years the diagnostic and therapeutic schema will completely change. The first test will be virus assessment and pap smear and further levels will be limited only to women infected by oncogenic types of HPV. I also hope that vaccinating would become very important. Different actions are performed to decrease the risk of continuous infection and to state an early diagnosis of precancerous changes. Those actions should practically eliminate this kind of cancer disease.

Endometrial cancer, at least the most common type of estrogen-dependent one is preceded by precancerous changes as well. These changes are recognized on the histological basis from material taken from the uterine cavity and cervical canal during hysteroscopy or D&C. More commonly this material is taken in outpatient conditions by aspiration methods. The clinical state – heavy longer bleeding or uterine bleeding after menopause are indications for taking an endometrial sample to the histological assessment. More often a decision of material taking in non symptomatic patients is an ultrasound examination – detection of polypus, incorrect echostructure or hypertrophy of endometrium in postmenopausal state. The oncological risk depends not only on the kind of endometrial hyperplasia but also on the cause which caused the precancerous changes. The risk caused by endometrial hyperplasia which is the consequence of estrogen excess in the effect of the recurrent non ovulate cycles in premenopause, minimize at menopause time. There is a completely different situation when hyperplasia is caused by estrogen over excretion in the peripheral tissues. The peripheral conversion in the fat tissue is getting bigger with the age of patient and a confidence that patient will lose some kilos from BMI 40, can stay only a credit. A chance that a very obese patient with hyperplasia will eliminate this risk factor stays illusive. The treatment, despite of the high risk of complications during and after operation, should be more radical.

Ovarian and fallopian tube cancers are practically one disease. Lately there are some suggestions that most of serous ovarian cancers originally developed from fallopian tube. At bottom, we do not know too much about precancerous changes in ovaries. Benign tumors convert into malignant ones very rare – the example can be a clear-cell ovarian cancer which grows on the base of endometrial changes. For years it has been suggested that changes with restricted malignancy are only a stage in the ovarian cancer development process but nowadays it seems that this is the final form of tumor. Moreover, it is proved that prophylactic adnexectomy before the postmenopausal state and under 65 years, although it decreases the risk of ovarian cancer, in opposite to expectations cuts the average age of women lives. Ovarian cancer still stays the biggest challenge in the gynecologic oncology.

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