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LETTERS TO THE EDITOR

Breast cancer treatment in Armenia: forward to the past?

Dear Editor,

Recently, the data concerning the incidence and mortality of female breast cancer (FBC) in 35 countries for the period 1990-2002 were presented [1]. Only in Belarus, Estonia, Latvia, Lithuania, Romania and Slovakia both incidence and mortality were increased. In all other 29 countries an increase in incidence, but a decrease in mortality was registered. The highest increase of the incidence of FBC was registered in 3 Baltic and in 2 Nordic countries, and also in Ireland and in Slovenia (37 and 54%, respectively), unlike other countries (15-30%) [1]. The increase of mortality in countries with increased incidence of FBC was between 0.4% (Lithuania) and 25.5% (Estonia) [1]. In a recent paper [2] it has been shown that in Armenia during 20 years (1980-2000) the incidence of FBC increased up to 73%, while the mortality surpassed 2-fold the incidence (143.1%). In that study the crude rates based on the approximation of population data were used.

The aim of the present letter was to assess the FBC incidence and mortality in Armenia during the period 1980-2004 based on the data of the CIA [3] which differ substantially from the results of the common census carried out in Armenia in 2001. FBC incidence and mortality data were reported by Bazikyan [4].

Calculated crude rates are presented in Table 1 along with data of WHO-IARC (Lyon, France, www.iarc.fr) based on approximations. As it can be noted, both incidence and mortality increased substantially during 19 and 24 years (2.06 and 2.22-fold, and 2.66 and 2.77-fold, respectively). Also, it is noteworthy that both sets of data are similar. The analysis shows an unfavorable situation with incidence and, especially, with mortality of FBC in Armenia. For example, the highest increase in incidence of FBC was registered in Lithuania (54%), but it is almost 2-fold less than in Armenia and at the same time the increase of mortality was only 0.4%. In Belarus, Estonia, Latvia, Lithuania and Slovakia the increase of mortality was between 8.4 (in Latvia) and 25.5% (in Estonia). In other countries with increased incidence, a decrease of mortality was observed, i.e. from 7.5% in Finland to 29.0% in the USA and Canada [1]. In the absence of relevant data it is possible to evaluate approximately the effectiveness of cancer treatment by dividing the mortality by the incidence of cancer [2]. The calculations show that the approximate effectiveness of FBC treatment was 2.13 in 1980, increased to 2.21 in 1985 (slight improvement), and declined to 1.71 in 2004. This means that in 1980s FBC was treated better than in 2004! The data presented herein are supported by a recent paper of Russian investigators who showed that the number of deaths caused by FBC grew significantly in Armenia during the last years [5].

Hence, the mortality due to FBC surpassed its incidence in Armenia, showing that treatment needs urgent improvements. At least, as a first step, it should reach the level of 1980s –"Forward to the past"– a slightly misquote of the title of the famous movie by R. Zemeckis.

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Table 1. The changes of female breast cancer incidence and mortality in Armenia in 1980-2004

Years	*Incidence (crude rate)*	*Mortality (crude rate)*	*Mortality (crude rate)**	*Mortality (ASR-W)*
1980	25.1	11.8	9.9	10.8
1985	27.2	12.3	11.6	12.1
2004	55.9	32.7	26.8	21.4
Increase during 24 years, 1980-2004 (%)	122.7	177.1	171	98.1
Increase during 19 years, 1985-2004 (%)	105.5	165.9	131.0	76.9

* IARC data (1981-2003), ASR-W: age-standardized rates adjusted to the World population (1960)

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Brain melanoma presented in a young child with neurocutaneous melanocytosis

Dear Editor,

Neurocutaneous melanosis or melanocytosis is not a common entity, and in many cases is implicated with primary melanoma development [1]. We had this experience with a 12-year-old male child with congenital pilose melachromatic nevi who developed primary epithelioid melanoma secondary to neurocutaneous melanosis. The patient had a giant nevus in the back as well as many other large nevi in the arms. The child was referred to our hospital complaining of headache, nausea, excitation and confusion. During his stay in the hospital he developed convulsions and right facial and right arm hemiparesis. Brain CT revealed a dilatation of the IV brain ventricle. We referred the data to a specialized centre in Europe where the colleagues failed to correlate the symptoms with the nevi. An intracranial valve was inserted to palliate the high intracranial pressure, while per os ciprofloxacin 500 mg ×2/daily was also administered. The patient remained free of symptoms for almost 2 months when he was readmitted at the emergency department with symptoms associated with high intracranial pressure. The next day the patient fell in coma and an exploratory craniotomy was performed. A melanotic neoplastic mass invading the child's brain was found and removed. The histological examination of the specimen revealed an epithelioid melanoma developed in pre-existing neurocutaneous melanosis. A year later the patient developed multiple intraabdominal metastases and died.

Although neurocutaneous melanosis had been described since 1861 by Rokitanski, only few cases have been reported in the literature [2]. The entity is characterized by large or giant melachromatic nevi and rapid progress in the meninges [3]. The existing experience suggests that the prognosis is poor when the patient develops neurological symptoms. MRI may contribute to the diagnosis as the tumor presents specific features. The diagnosis can also be established by revealing melanocytes in the cytological examination of the cerebrospinal fluid [4]. The giant nevi in neurocutaneous melanosis present high potential for malignant transformation and development of melanoma (5-40%) and most authors agree that they should be removed as soon as possible during childhood [5].

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Torsion of ovarian sclerosing stromal tumor in adolescence

Dear Editor,

Sex cord-stromal tumors account for 10% of ovarian neoplasms in the pediatric population and 7% of them are sclerosing stromal tumors (SSTs) [1]. SST is an ovarian neoplasm that most commonly occurs in adolescent patients and young women with irregular menses and abdominal pain [1]. SST usually has a rich peripheral vascular network. Until 2007 more than 150 cases with SST have been reported in the literature. However, torsion of these neoplasms has been rarely reported so far [2], especially in adolescents.

We present a case of a 14-year-old girl with torsion of a large ovarian tumor. Her symptoms began 4 days earlier, with sharp pain in the right lower quadrant, however she had noticed abdominal distention over the past 3 months. Physical examination showed incipient hypovolemic shock. All hormonal analyses were normal. Tumor markers were negative except CA125, which was elevated to 76 U/ml (normal up to 37). An abdominal ultrasound scan revealed a huge solid tumor probably arising from the right ovary, with absence of Doppler flow. Immediately after the admission, the patient was taken to the operating theatre with a provisional diagnosis of a large solid adnexal mass with probable torsion and evident blood loss. At surgery, a smooth livid mass was found, arising from the right adnexa, which was evidently torsioned. A right salpingo-oophorectomy was performed. The uterus, left ovary and tube were of normal appearance. Careful abdominal exploration revealed no seeding, metastasis or ascites. During the operation the patient received 10 units of blood transfusion and the concentration of hemoglobin and hematocrit normalized. On gross examination, a large ovarian tumor weighing 3.2 kg, 21×11×17 cm in size was found, with smooth surface, firm consistency and dark gray-purple section surface. Histological examination showed partly compact, partly loosely arranged spindle cells in a sclerotic stroma with thin-walled vessels. Spindle tumor cells showed immunoreactivity for vimentin and smooth muscle actin and in a small proportion for desmin, whereas immunohistochemical staining for CA125 was negative.

This was an unusual presentation of SST torsion, with massive redistribution of blood volume into the tumor but without capsule rupture. Also, our patient had all the signs of hypovolemic shock in the absence of acute abdomen. The estimated blood loss was over 1 liter. In one series, 12 cases of SST were studied and demonstrated expression of vascular permeability factor/vascular endothelial growth factor in capillary to medium-sized blood vessels [3]. Torsion of the presented tumor led to the increase of blood flow due to the ability of the peripheral tumor blood vessels to dilate, resulting in severe anemia in our patient. On gray-scale ultrasound examination, SST of the ovary is an echogenic ovarian mass with acoustic shadowing and peripheral distribution of color Doppler signal [4]. Terauchi et al. reported abnormal serum level of CA125 associated with SST with negative immunohistochemistry for CA125 [5], as we observed in our patient.

The general condition of our patient and tumor appearance may be very similar with a patient with ovarian malignancy. A salpingo-oophorectomy is an optimal procedure needed in this group of patients. We suggest that SST may be considered in the differential diagnosis of torsioned solid adnexal masses mimicking malignant tumors in adolescents, which occasionally can be associated with severe anemia.

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