BILATERAL SYNCHRONOUS MALE BREAST CANCER OF RARE HISTOLOGIC TYPE. CASE REPORT

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BILATERAL SYNCHRONOUS MALE BREAST CANCER OF RARE HISTOLOGIC TYPE. CASE REPORT (Abstract). The particularity of the presented case is bilateral synchronous male breast cancer of uncommon histologic type – invasive cribriform carcinoma. In the practice of our surgical unit it is the first and only case of synchronous bilateral male breast cancer. The patient was followed up regularly for the last 4 years after a modified radical bilateral mastectomy with axillary lymph node clearance followed by adjuvant chemotherapy and endocrine therapy and he showed no signs of local recurrence or metastatic disease. Keywords: MALE BREAST CANCER, SYNCHRONOUS CANCERS, INVASIVE CRIBRIFORM BREAST CANCER, MORBIDITY.

Male breast cancer (MBC) is a rare disease (0.5-1% of all breast cancers (1)). Only 2% of all reported cases of MBC are bilateral (2). Men diagnosed with breast cancer are older (mean age at diagnosis is 67 years) than women with this disease, and have a poorer survival rate (5-year Survival - 67%). Klinefelter syndrome is found in approximately 7.5% of men with breast cancer. The risk of breast cancer in individuals with Klinefelter syndrome is up to 20–50 times higher compared to men with normal karyotype. BRCA2 mutation carriers have an 80–100 times higher lifetime risk of MBC. Up to 20% of men with MBC have a positive family history of breast cancer (3). Conditions such as hyperestrogenism, hyperprolactinemia, alcohol intake and tobacco smoking, occupational risks (especially working in hot environments) are slightly increasing the risk of MBC (4). Gynecomastia, a very common disorder in young men, does not increase the risk for MBC (5). First described by Page et al. in 1983, invasive cribriform carcinoma (ICC) has a low incidence (0.3% to 3.5% of all invasive breast carcinomas) (6,7). There are 3 forms of ICC of the breast - pure, classical, and mixed. ICC usually presents as a slowly growing, frequently occult tumor mass, often difficult to detect on conventional examinations. Most of these tumors have positive estrogen and progesterone receptors (8). Metastatic disease in patients with ICC is rarely reported (7). Five-year survival rate is

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nearly 100% for pure and classical types (≥50% ICC), 88% for mixed types (<50% ICC), and 78.3% for the infiltrating duct carcinoma controls (8).

CASE PRESENTATION

A 61-year-old male presented to our unit with an unpainful, insidiously growing left breast mass and a bloody discharge from the right nipple that occurred 2 months ago. His past personal medical and family history was unremarkable, except for rheumatic fever (in childhood). He had no pertinent occupational exposure. No liver dysfunction or testicular failure was found. Routine laboratory data showed no pathologic changes. Tumor marker CA15.3 was within normal range. The levels of other tumor markers (α-fetoprotein=1,26 ng/ml, PSA=1,81 ng/ml, Prolactin=310.9 µUI/ml) were also normal. Physical examination of the right breast revealed no palpable masses and clinically negative right axilla. Palpation of the left breast revealed a 3 cm irregular, solid lump in the central quadrant, fixed to the subjacent tissues. Left axilla was also clinically negative. Other physical assessments were normal. No genetic tests were performed.

Breast ultrasound revealed in the right breast (fig.1) two nodular, retro areolar, well defined hyperechoic masses of 1.1 x 0.9 cm and 0.74 x 0.65 cm, respectively and possibly another 0.37 x 0.34 cm mass adhering to the subjacent muscular structures, absence of axillary lymph nodes. The left breast (fig. 2): retro areolar and external 2.6/2.1 cm mixed lump with the presence of a 1.9 x 1.7 cm solid mass with Doppler signal present; left axilla contained no detectable lymph nodes. Mammography showed: in the right breast a 0.7 x 0.6 cm homogeneous opacity with precise contour; in the left breast a 3 x 3.1 cm solid mass, which contained on the lateral wall a 1.4 x 1.4 cm solid irregular mass adherent to the subjacent pectoral muscle. No distant metastases were identified (thoracic radiography and abdominal ultrasonography).

After adequate preoperative preparation, an excisional biopsy of breast tumors was performed. Extemporaneous analysis of the specimens revealed a bilateral invasive ductal carcinoma. A bilateral Madden-type modified radical mastectomy with axillary lymphadenectomy was performed. Postoperative course was favorable. The patient was discharged from our unit 8 days after surgery, in good condition, with no complains.
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Pathological examinations revealed:
right breast – invasive cribriform carcinoma (fig. 3, 4) with lymph node metastasis pT1cN1aG1, 1 of 22 lymph nodes with metastatic carcinoma, ER (estrogen receptor) 90%, HER2 negative, PR (progesterone receptor) 80%; left breast – invasive ductal mixed with invasive cribriform carcinoma without lymph node metastases pT1cN0G1, ER 90%, PR 90%, HER2 negative. The patient has undergone both adjuvant chemotherapy (6 cycles of cyclophosphamide and doxorubicin/epirubicin) and hormonal therapy (tamoxifen). The 4-years regular follow up showed no signs of local recurrence or metastatic disease.

DISCUSSION

The management of MBC is mainly developed based on treatment guidelines elaborated for breast cancer in women due to the lack of large population studies and randomized clinical researches of MBC. An age- and stage-matched comparison between male and female breast cancer revealed that there is no significant sex-related difference in overall survival (3). There are studies that concluded that men with breast cancer have lower risk of death than comparable female patients (9). The main known prognostic factors for MBC are tumor size (85% survival rates when tumor sizes are less than 2 cm) and lymph node involvement (50% higher risk of death than those with negative axillary nodes) (10). Incidence of bilateral MBC is approximately 2%, and synchronous tumors are exceedingly rare (11). The importance of early diagnosis is overwhelming in MBC when surgical treatment may be radical, curative and sometimes sufficient. The significance of neoadjuvant chemotherapy in MBC remains uncertain and is used in few cases in order to obtain operability. Surgery is the mainstay of treatment for breast cancer in men. Usual surgery for MBC is modified radical mastectomy with axillary clearance or sentinel node biopsy. In rare locally advanced cases with muscle involvement a radical mastectomy should be performed with partial or total resection of pectoral muscles. Lumpectomy in initial MBC stages in selected patients followed or not by adjuvant radiation therapy has a little better cosmetic outcome and is performed in few surgical centers (2). Due to the presence of ER and PR in most patients with MBC hormone...
therapy is indicated with a significant benefit in overall survival, local recurrence and metastatic disease control. Adjuvant radiation therapy is indicated in MBC with large tumors, cutaneous involvement, invasion of areola or subjacent muscles, axillary lymph-node metastases, involved margins on mastectomy specimen. Postoperative radiation therapy is also recommended in patients with multifocal, high grade tumors, high tumor proliferation rate, lymph, vascular and perineural invasion. Chemotherapy should be considered in men with intermediate or high-risk early breast cancer, especially those with hormone-receptor-negative disease as it reduces the risk of recurrence and death. HER-2 amplification in MBC is rare (2 to 15%). The effectiveness of targeted treatment with trastuzumab in MBC is uncertain due to the lack of controlled prospective studies, and may be used in patients with HER-2 positive breast cancers (3).

CONCLUSIONS
For our unit, the here presented clinical case of synchronous, bilateral male breast cancer of uncommon histological type – invasive cribriform carcinoma is an exceptional finding because, until now, there are no similar cases reported in literature. Due to its very low incidence in men, breast cancer is rarely suspected both by patients and medical personnel.

REFERENCES