

Axillary lymph node and early breast cancer diagnostics. A case report

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Understanding of the anatomy of the axillary lymph nodes is important in diagnostic and treatment procedures for breast cancer. An interesting case is presented here of breast cancer without a breast tumour. The first symptom of the disease was lymphadenopathy of the axillary region. This kind of case is extremely rare in clinical practise (one case per 1–5 years) and constitutes a great problem for specialists, since in many cases the primary neoplasm source is unknown. The anatomical and clinical implications of such a situation are discussed.

key words: breast cancer, axillary lymph nodes, diagnostic methods, "hidden" breast cancer

INTRODUCTION

Despite the rapid development of modern diagnostic techniques, the early recognition of breast cancer is still a major problem in daily clinical routine. Difficulties appear in cases which follow an atypical course. The monitoring of such clinical cases with a detailed analysis both of the diagnostic mistakes committed and of the course of the neoplasm can prevent further mistakes. Moreover, this reveals new facts concerning the development of the neoplasm. The lymphatic system plays a major role in the spreading of neoplastic cells. This is why the anatomy of the armpit is essential for the diagnostics and surgical treatment of breast cancers.

CASE REPORT

A 57-year-old female patient underwent clinical examination of the breast gland. A lymph node of approximately 1.5 cm was found in the left armpit. The node was located in the lower part of the axilla and was soft, slightly painful and moveable. During clinical examination intensive fibro-cystic changes were found in the mammary gland. Evident tumour-

like proliferative change was not found. A chest X-ray, MMG, and sonomammography were performed. No irregularities were found during chest examination procedures. Intensive mastopathic lesions were found in mammography. However, these did not have the features of a mammographic mammary gland tumour. Breast ultrasonography revealed multiple cysts of different sizes and great mastopathy without the features of a proliferative process. The patient underwent thin-needle aspiration biopsy (BACC) of the palpable lymph node. The result described lymphoid line cells with features of dyscariosis. The removal of the lymphatic node and histopathological examination was recommended. The patient also underwent additional examinations: routine blood and urine analysis, abdomen ultrasonography, neoplastic markers and cytological examination of the uterine cervix. No irregularities were found in the examinations performed. Operating procedures were then performed under venous short-acting anaesthesia. During the operation the lymph node was totally removed. The histopathological examination showed *Carcinoma metastaticum prob-*

abiliter e mammae. Using all the diagnostic procedures an attempt was made to find the primary focus in the breast. These included team mammography evaluation, further ultrasonography and triplicate biopsy of the most suspicious cysts. Breast MRI was also performed. No pathology was detected. Histological specimens were then consulted and the primary diagnosis confirmed. The lymph node cancer cells were examined by means of receptor status. Oestrogen and progesterone receptors were not found. The presence of the (+++) HER 2 receptor was ascertained. Because of the unfavourable prognosis factors, the patient underwent aggressive chemotherapy.

RESULTS AND DISCUSSION

Early detection of breast cancer is still one of the most important factors in the survival rate of patients [7]. Among available early breast cancer detection methods are: self-examination, palpable clinical examination, mammographic examination and breast ultrasonography. Progress in methods of visualisation and the development of computer analysis has given rise to a new generation of methods, although these are not universally employed.

The role of self-examination is controversial. None of the trials performed has proved a lower mortality among women performing self-examination compared to a control group [5]. On the other hand more than 40% of tumours are detected by patients themselves [7].

Palpable clinical examination is of a great importance, especially among young women with a thick mammary gland structure and in view of the relative ineffectiveness of mammography in this group of patients. According to the National Breast and Cervical Cancer Screening Program, the detectability of breast cancer among of women with palpable lesions and normal mammography examination was 5.1% [1]. At the same time, the detectability rate was higher when abnormal clinical as well as abnormal mammographic examination was conducted. Extremely interesting results have been presented in a randomised Canadian Study of 13 years' duration, which found that mortality among women who underwent both clinical and mammographic examination was similar to that of those who were only examined clinically [4]. It was estimated that the sensitivity of clinical examination (palpation) was 56% and the specificity 70% < 50 years of age, while for women of > 50 years of age these values were 86% and 90% respectively. Palpation examination of younger

women is more difficult due to the thick, glandular structure of the mammary gland. Apart from detecting tumour-like changes of the mammary gland, the result of palpation examination serves as the basis of an assessment of the spread of a disease and is therefore an important factor in the decision-making process concerning the optimal treatment in a particular clinical situation. Detection of enlarged supraclavicular and axillary lymph nodes by palpation examination, confirmed by cytological and histological examinations, is a crucial factor in deciding whether a patient should undergo neoadjuvant chemotherapy or should be disqualified from surgical procedures.

The method of choice in early breast cancer is mammography [2]. Its sensitivity, however, differs depending on age. In young women with thick breast tissue its sensitivity is only 30%, whereas among older women, whose breasts consist mostly of fatty tissue, the sensitivity of mammography amounts to 80% [3] (Fig. 1). The introduction in many countries of mammography as a screening examination has



Figure 1. Mammography showing the presence of a 1 cm cancer tumour. Non-palpable lesion.

unquestionably been a success. It has contributed to the detection of breast neoplasm at the preinvasive stage (T0) and of tumours up to 1 cm (T1a), so achieving a decrease of about 30% in breast cancer mortality.

Attention should be drawn to the significance of clinical examination, which may, as our case report demonstrates, be the only method which leads to a diagnosis.

The presence of "hidden breast cancer" is reported in this paper. This kind of cases is extremely rare in clinical practice. The Oncological Department of the Central Oncological Hospital (Łódź, Poland) has reported only 21 such cases in the last 20 years [6]. Due to a lack of experience and of research on a large population, "hidden breast cancer" is a great problem for both patient and specialist. Understanding of the axillary lymph node drainage region and observation of the close connections between breast cancer and axillary lymph node metastases have caused the thinking that every axillary metastasis comes from the mammary gland to be revised. The analysis of the case here presented has confirmed previous observations showing the possibility of another primary neoplasm focus, such as the kidney or lung, leading to change in the recommended treat-

ment method. At present axillary lymph node resection and radiotherapy of the axillary region are recommended [6].

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