Secondary alopecia neoplastica – the first metastasis of the breast cancer

Introduction

Secondary alopecia neoplastica (AN) represents metastases of internal malignancies in scalp skin. Clinically, it is most commonly seen as one or more areas of cicatricial alopecia. Although at first it may resemble alopecia areata, later, induration, telangiectasia, nodular lesions may be seen. AN may correspond to the initial clinical presentation of hidden internal malignancies but may also indicate a neoplasia relapse in previously stabilized oncological patients. Brownstein found that the scalp metastases account for 4% of all cutaneous metastases.

Herein, we show AN as the first relapse of the breast cancer 6 years after surgery.

Case report

A 55-year-old woman was referred to our outpatients clinic because of alopecic plaques over the scalp that appeared 6 months earlier. She has a history of right breast cancer surgery (carcinoma ductale invasivum HG II, NG II, Pt 12mm) 6 years ago, followed by chemotherapy and radiation therapy.

On examination, in parietal region two alopecic plaques, measuring 4x5cm i 2x2cm, slightly sclerotic, erythematous, shiny, with rare crusts and telangiectasia were seen (Figure 1a). Routine laboratory analyses and tumor markers (CA 128, CA 15-3, CEA) were within normal limits, chest x-ray and ultrasound of the abdomen showed no pathological changes.

Histopathology of the by opted skin lesion revealed atypical cells that form infiltrative cords, small lobules and ducts throughout the dermis. These cells exhibited marked pleomorphism with high nuclear/cytoplasmic ratio (Figure 2). Metastatic breast carcinoma was confirmed.

MSCT of the endocranium, thorax and abdomen was done and no metastatic changes were found. WB skeleton scintigraphy revealed no pathological changes.

Treatment was started with tamoxifen 2x20mg/day plus palliative radiotherapy for the first 4 months, and then with tamoxifen only. One year later, there was a significant clinical regression of the metastatic scalp lesion (Figure 1b).

Figure 1 Alopecianeoplastica - before (A) and after treatment.
AN originating from breast cancer commonly clinically presents as one to two patches or plaques with an average size of about 3cm. Plaques are indurated, erythematous, telangiectatic which is significant for eliminating alopecia areata. Certainly, the clinical presentation also depends on the developmental stage of metastatic lesion. Initially, it may look like alopecia areata, and in the later phase, tumor masses were written. However, AN may resemble other forms of alopecia. Thus, Gil U. et all, described AN due to metastatic colou adenocarcinoma represented as subtotal alopecia.10 Lim HLJ. et coworkers presented a case of multifocal AN in a Chinese woman one year after right breast mastectomy and adjuvant chemotherapy because of Stage 3 invasive ductal carcinoma.11

It is important to emphasize that adenocarcinoma is the most common cancer histological subtype presenting metastases toward skin.12

Different therapeutic options for AN are being implemented: hemotherapy, radiation therapy, surgical excision.

Cutaneous metastases are known to identify with advanced visceral malignancy and to be a poor prognostic sign. Recent research studies suggest that the survival period in patients with cutaneous metastases depends on the localization of visceral malignancy. Thus, the survival period is longer for breast cancer patients than for patients with lung cancer or other kinds of neoplasm. Interestingly, despite the fact that AN is very rare, according to the recent study results, it was the first metastatic event in 65.3% of patients with visceral malignancies.7

Herein, we presented a patient with AN as the first metastasis 6 years after breast cancer operation with good outcome to tamoxifen and radiotherapy. One year after the diagnosis of AN, no new metastases were found and the patient was in good general condition.

Diagnosis of AN may be challenging, especially when its onset precedes the diagnosis of the primary malignancy. Biopsy of scarring alopecia, especially in patient with history of internal malignancy is obligatory.

Conflicts of interest

The authors declare no conflict of interest.

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