INTRODUCTION

Uterine cancer is usually diagnosed in early stages of the disease due to the fact that in most cases it induces the apparition of abnormal vaginal bleeding which worries the patients and determines them to self address to the gynecologist [1]. Therefore, a significant number of cases will be diagnosed in early stages and will benefit from radical surgery with curative intent. However, a certain percent will develop distant metastases via different patterns of spread such as hematogenous, lymphatic or peritoneal route, conducting in this way to the apparition of disseminated lesions [2,3]. Moreover, certain histopathological subtypes such as uterine sarcomas present a very poor biology, characterized through a high capacity of spread, metastatic disease being encountered from the initial diagnostic [4,5]. In the meantime, breast represents one of the most improbable sites of developing metastatic lesions with uterine origin. Meanwhile it is estimated that less than 7% of all breast tumors represent in fact metastatic lesions, the most commonly cited malignancies responsible for the development of metastatic lesions at this level being represented by lung and stomach [6].

MECHANISMS OF DEVELOPMENT OF BREAST METASTASES FROM UTERINE PRIMARIES

As mentioned before, the most commonly incriminated pattern of spread is represented by the hematogenous route, which also explains why in certain cases other parenchymatous lesions such as splenic metastases have been also reported in association with breast metastases; however, other
<table>
<thead>
<tr>
<th>Author, year</th>
<th>Age</th>
<th>Location and histopathological type of the initial tumor</th>
<th>Stage at initial diagnostic</th>
<th>Initial therapeutic strategy</th>
<th>Time to diagnostic of the breast metastasis</th>
<th>Therapeutic strategy at the time of breast lesion diagnostic</th>
<th>Survival</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aitelhaj, 2014 [10]</td>
<td>55</td>
<td>Uterine cervix, squamous cell carcinoma</td>
<td>IIB</td>
<td>Chemoradiotherapy with 46 grays on the pelvis with cisplatin (40 mg/m²) followed by high-dose-rate intracavitary brachytherapy</td>
<td>8 months</td>
<td>Excisional biopsy followed by a chemotherapy regimen based on paclitaxel 175 mg/m² and cisplatin 50 mg/m² every three weeks,</td>
<td>Died three months later</td>
</tr>
<tr>
<td>Kelly, 1991 [7]</td>
<td>32</td>
<td>Uterine cervix, adenosquamous carcinoma</td>
<td>IB</td>
<td>Radical hysterectomy, pelvic and para-aortic lymph node dissection followed by external beam radiation therapy</td>
<td>2 months</td>
<td>Cyclophosphamide, methotrexate, 5 fluorouracil, external beam radiation therapy</td>
<td>Died after the diagnostic of the breast metastasis</td>
</tr>
<tr>
<td>Ward, 1988 [14]</td>
<td>48</td>
<td>Uterine cervix adenocarcinoma</td>
<td>IIB</td>
<td>-</td>
<td>3 months</td>
<td>-</td>
<td>Died 1 month after the diagnostic of metastatic disease</td>
</tr>
<tr>
<td>Gonzalez, 2016 [15]</td>
<td>35</td>
<td>Uterine cervix, squamous cell carcinoma</td>
<td>IIIB</td>
<td>-</td>
<td>9 months</td>
<td>biopsy</td>
<td>Died 2 months after the diagnostic of metastatic disease</td>
</tr>
<tr>
<td>Mangla, 2017 [16]</td>
<td>50</td>
<td>Uterine cervix, squamous cell carcinoma</td>
<td>IVB</td>
<td>External beam radiation therapy (45 Gy delivered over 22 fractions) to the pelvis and concurrent chemotherapy with weekly Cisplatin (40 mg/m²) followed by temic therapy with Carboplatin (AUC 5) and Paclitaxel (175 mg/m²)</td>
<td>Synchronous breast metastase</td>
<td>biopsy</td>
<td>Alteration of the general status after the first cycle of carboplatin and paclitaxel, declined any further treatment, lost from follow up</td>
</tr>
<tr>
<td>Saywon, 2021 [17]</td>
<td>27</td>
<td>Uterine cervix, Squamous cell cervical cancer</td>
<td>IIB</td>
<td>weekly dose of cisplatin was given intravenously at 40 mg/m² for five cycles. External beam pelvic radiation - at 2 Gy per fraction with a total of 50 Gy given for 5 to 6 weeks. Pelvic boost of high dose external beam radiotherapy - 3 weeks later after completion of the initial radiotherapy</td>
<td>6 months</td>
<td>5 cycles of cyclophosphamide, doxorubicin and 5 fluoro Uracil, progression of the disease</td>
<td>Not reported</td>
</tr>
</tbody>
</table>
pathways of spread such as the lymphatic one has been also proposed [7-10].

CASES REPORTED SO FAR OF UTERINE CANCER BREAST METASTASES

The first cases diagnosed with breast metastases from cervical cancer were reported in 1947 in an autopsy study while the first case diagnosed in a living patient was made in 1948 [11,12]. Since then, isolated cases have been reported so far.

An important issue which should be taken in discussion when it comes to the subject of breast metastases from cervical cancer is related to the differential diagnosis between metastatic disease and primary carcinoma of the breast. Most often metastatic disease acts like an inflammatory mass, attention being needed in order to differentiate it from primary inflammatory breast cancer; meanwhile permeation nodules can be also found at clinical examination, orientating therefore the diagnostic to a metastatic disease acts like an inflammatory mass, attention being needed in order to differentiate it from primary inflammatory breast cancer; meanwhile permeation nodules can be also found at clinical examination, orientating therefore the diagnostic to a metastatic condition [13]. As expected, metastatic contamination of the breast occurs via hematogenous spread, leading to the apparition of multiple breast nodules; interestingly, they are usually found at the level of the upper outer quadrants [19]. When it comes to the imagistic studies which can be used in order to establish the differential diagnostic between metastatic and primary lesions, metastases usually exhibit benign features; therefore, metastatic lesions have well defined shapes and posterior acoustic enhancement [18]. In order to establish the final diagnostic, biopsy and immunohistochemistry is needed.

As for the efficacy of treatment in such cases, it is extremely reduced, irrespective of the type of therapy. As it can be observed from the table below, the overall survival of patients diagnosed with breast metastases from uterine primaries are limited to a few months, the presence of these metastases being usually the sign of diffuse neoplastic impregnation.

CONCLUSIONS

Breast metastases from uterine primaries represent a very scarce eventuality, few cases being reported in literature so far. Therefore, a standard therapeutic protocol guide could not be established, different therapeutic strategies being proposed so far. However the reported results are extremely poor, the overall survival being usually of only few months since the moment of breast metastases diagnostic.

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REFERENCES