

# GESTATIONAL CHORIOCARCINOMA WITH METASTASIS TO BREAST: AN UNUSUAL PRESENTATION

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## INTRODUCTION

Gestational trophoblastic diseases represent less than 1% of gynecological malignancies and is most commonly recognized after molar pregnancy but may also occur after normal and ectopic pregnancy, and spontaneous or therapeutic abortion. Its incidence is high in Asian countries where this figure is as high as 1 in 120 pregnancies, whereas incidence is 1 in 1200 in the United States<sup>1</sup>.

It is highly curable if treated in early stages and in experienced centers. Choriocarcinoma is one of the malignant tumors of trophoblastic cells characterized by the secretion of human chorionic gonadotrophin (hCG). The tumor consist of two basic cell types: cytotrophoblast and syncytiotrophoblast, the typical histologic features of choriocarcinoma<sup>2</sup>. The serum hCG is typically elevated. It usually arises from fetal trophoblasts and rarely arises from germ cells in the testis or ovary<sup>3</sup>. The most common sites of systemic metastatic disease of chorio-carcinoma are lung, liver and brain via hematogenous spread<sup>2</sup>. Skin and Breast are very rare sites for metastatic choriocarcinoma<sup>4,5</sup>.

We describe a case of 35 years old female patient of choriocarcinoma who presented with metastasis in breast after complete treatment of choriocarcinoma.

## CASE REPORT

A thirty-five years old female patient, para 6, presented with postnatal bleeding per vagina of eight months duration. Evacuation and currattage was done .On histopathological examination she was found to have choriocarcinoma. Beta subunit of human chorionic gonadotrophin level was 35200 mIU/ml. X-ray chest posteroanterior view and rest of hematological and biochemical profile was normal. According to International Federation of Gynecology and Obstetrics (FIGO) 2000 scoring /staging system she was labeled as medium risk patient and was started with combination chemotherapy which included Etoposide, Methotraxate, Actinomycin D/Cyclophosphamide,

Oncovin (EMA/CO) in July 2007. She was monitored in between chemotherapy administration with beta subunit of human chorionic gonadotrophin (hCG). It became normal in October 2007. Following this she was given two more cycles of chemotherapy. Thereafter she lost to follow-up. In January 2009 she presented with lump in her left breast in upper outer quadrant. The lump was 4x3 cm<sup>2</sup> in size, mobile, firm in consistency. It was nontender and overlying skin was normal. It was not fixed to underlying structure. She was sent to surgeon. Fine needle aspiration cytology followed by excision of mass was done. Histopathology and immunohistochemical stain was reported as metastatic choriocarcinoma. Beta hCG level was 21309 mIU/ml. Rest of the metastatic work up was normal. She was started with cisplatin based combination chemotherapy (Etoposide, cisplatin/ etoposide, methotraxate, actinomycin D) EP/EMA in February 2009. Chemotherapy response was monitored with beta hCG level that became normal in April 2009 following which she was given two more cycles of chemotherapy. Now she is fine and coming regularly for follow-up.

## DISCUSSION

Metastatic disease occurs in 4% of patients after local management of hyditiform mole and rarely after term pregnancies (1 in 40,000) or abortions. Rapid growth and high propency for hemorrhage make this tumor a medical emergency. Metastases are found in lung (80%), vagina (30%), pelvis (20%), brain (10%) and liver (10%). Other rare sites are the spleen, kidneys, gastrointestinal tract, skin<sup>6</sup>, urinary bladder<sup>7</sup>, thyroid<sup>8</sup>, and right ventricle of heart<sup>9</sup>. Brain metastasis although is not common but long term survival has been possible with the introduction of methotraxate<sup>10</sup>. Breast is an unusual site for metastatic disease from extramammary neoplasms<sup>11</sup>. According to recent review of literature, the most common sources for breast metastases in order of decreasing frequency are lymphomas, melanomas, rbdomyosarcomas, lung tumors and ovarian tumors<sup>12</sup>. Choriocarcinoma is a very rare extramammary source of breast metastases and has been described in a few

isolated case reports<sup>13,14</sup>.

Colour flow imaging in combination with mammography and serum level of beta subunit of human chorionic gonadotrophin (hCG) may help in diagnosis<sup>15</sup>. However diagnosis is confirmed by histopathological examination of excised tissue along with immunohistochemical stain. Cisplatin based combination chemotherapy have shown excellent results in gestational trophoblastic disease with metastases.

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