

## CARCINOMA BREAST METASTASIS TO THE SUPRARENAL GLAND: AN UNUSUAL PRESENTATION

KAFIL AKHTAR, RANA SHERWANI, ERAM KAHKHASHAN

Jawaharlal Nehru Medical College

Metastatic breast cancer is a complex multi-step process involving the expansion of cancerous cells from the breast to other areas of the body. It is a serious complication of breast cancer, as metastatic disease in breast cancer is often fatal, with treatments mainly limited to palliation. Invasive ductal carcinoma (IDC) of the breast primarily metastasizes to the bones, lungs, lymph nodes, liver and the brain, with the most common site being the bone [1]. Solitary adrenal metastasis is extremely rare. Due to the rarity of this condition, the optimal treatment is unclear. We report a rare case of IDC of the breast metastasizing solely to the adrenal gland, diagnosed two years after modified radical mastectomy.

A 45-year-old female was admitted with the complaints of pain in abdomen and shortness of breath. She was well for 1 year and came back when she developed a right breast lump for which she underwent mastectomy and was diagnosed as infiltrating ductal carcinoma. On examination she was anemic and had no lymphadenopathy or organomegaly. Ultrasonography revealed a left supra renal mass measuring 2.8 cm × 2.0 cm, which was confirmed by CT scan. Ultrasound guided

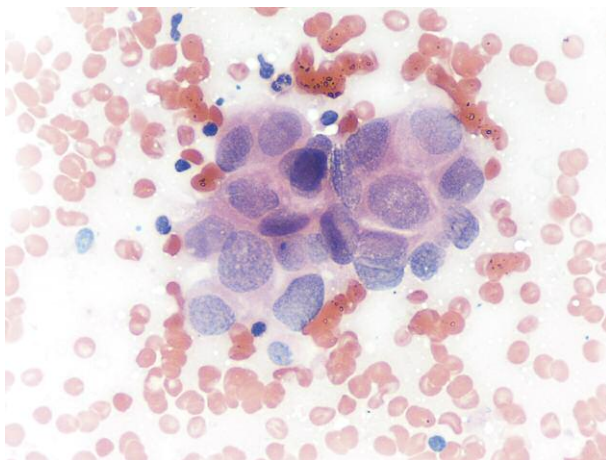


Fig. 1.

fine needle aspiration cytology of the supra-renal mass was done which provided blood mixed material. The microscopic examination of the Papanicolaou and Hematoxylin & Eosin stained smears, revealed loose clusters of ductal epithelial cells with a high nucleocytoplasmic ratio, hyperchromatic nuclei with irregular nuclear contours and clumped chromatin recapitulating the acinar pattern (Fig. 1). A diagnosis of metastatic adenocarcinoma breast was made after excluding the primary supra renal tumor through assessment of radiological and morphological features. Left adrenalectomy was performed and she is well after three years of surgery without any evidence of recurrence.

Lam and Lo [2] collected 464 cases with adrenal metastases from various primary tumors during 30 years. The lungs were the most common primary tumor site (35.4%), followed by the stomach (14.3%), the esophagus (12.1%) and the liver/bile ducts (10.7%). In a study of metastatic patterns of breast cancer, Borst and Ingold [3] reported that in a group of 2246 patients with IDC, none of them had shown adrenal metastasis. In fact, adrenal metastasis of breast cancer is generally associated with infiltrating lobular carcinomas (ILC) and often accompanied by synchronous multiorgan metastases [3]. A metachronous, isolated adrenal metastasis from ILC is rare, which is even rarer when it derives from IDC of the breast. So far there has been only one case of isolated adrenal metastasis arising from ILC of the breast documented [4], but the IDC with solitary adrenal metastasis has never been reported in the literature. We believe our case is the first presentation of a solitary adrenal metastasis from IDC of the breast with a long-term survival description. For patients in this condition, complete removal of the metastasized organ may translate into the survival benefit. Apparently, this recommendation is based on a rare case and further clinical research is needed.

*The authors declare no conflict of interest.*

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## Address for correspondence

### **Kafil Akhtar**

Jawaharlal Nehru Medical College  
Department of Pathology  
Jawaharlal Nehru Medical College  
Aligarh Muslim University  
Aligarh, Uttar Pradesh, India