Umbilical metastasis from carcinoma lung

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ABSTRACT

Umbilical metastases from malignant neoplasms are also termed as sister Mary Joseph’s nodule. These nodules are commonly adenocarcinomas with the commonest primary sites in intraabdominal organs. Carcinomas of the lung very rarely metastasize to the umbilicus. A case of a patient who came with an umbilical nodule as the presenting feature of squamous cell carcinoma of the lung is being described. The uncommon presentation and rare site of metastasis of lung carcinoma is being reported.

Key words: Lung, squamous cell carcinoma, umbilical metastasis

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INTRODUCTION

Metastases to the umbilicus from gastrointestinal tract or genitourinary tract tumors are not an uncommon occurrence and they are usually adenocarcinomas. However a squamous cell carcinoma of the lung metastasizing to the umbilicus is rare and has rarely been reported.

We are reporting a case of a patient who presented with an umbilical nodule and which on further investigation was a metastasis from lung carcinoma (SCC). This case is being presented for the rarity of its presentation and to highlight that although rare, lung cancer can metastasize to the umbilicus.

CASE REPORT

A 52-year-old male patient who was a manganese ore miner by profession and a nonsmoker presented with a history of a painless nodule above the umbilicus for one month. On examination a small firm nodule measuring 2.5 x 2.5 cm was felt in the anterior abdominal wall midline just above the umbilicus. The nodule was free from the overlying normal skin. There was no cough impulse. A clinical diagnosis of epigastric hernia was made. The patient was taken up for surgery under spinal anaesthesia.

Operative findings: A transverse skin incision was made above the umbilicus. A well-circumscribed tumor was found deep to the skin in relation to the rectus sheath. The subcutaneous fat above the nodule appeared inflamed. The tumor was excised along with the surrounding fat and sent for histopathological examination.

Histopathology: The periumbilical tumor mass measured 3 x 2.2 x 1.1 cm. Cut surface showed grayish white homogenous appearance. Microscopically a tumor composed of round to oval cells with squamoid differentiation at places, mitotic activity and infiltration into the surrounding adipose tissue was seen. It was reported as a SCC [Figure 1].

On receiving the report, further investigations were done to establish the umbilical nodule as a secondary neoplasm as the overlying skin was normal. A chest X-ray was taken which revealed a right mid zone opacity. CT scan of the chest [Figure 2] showed a large infiltrative soft tissue attenuation in right hilar and suprahilar region involving anterior segment of the right upper lobe and measuring 5.3 x 5.7 x 5.7 cm, of heterogeneous density with central areas of necrosis. The chest CT scan was reported as suggestive of a neoplastic lesion in the suprahilar pulmonary region. A CT guided fine needle aspiration of the pulmonary mass was done and the material was sent for cytology. The cytology of the mass was reported as SCC [Figure 3]. The patient had no symptoms referred to the gastrointestinal
or genitourinary system and CT scan of the abdomen was normal. Immunohistochemistry was not done on the biopsy or FNAC smears as the facility was not available.

On reviewing the size and cytological appearance of the lung tumor along with the histopathological appearance of the periumbilical tumor, the case was diagnosed as squamous cell carcinoma of lung with metastasis to the umbilical region. The patient was referred to the oncologist for further treatment.

**DISCUSSION**

The umbilical region is known to be a site for metastasis. The metastatic nodules to the umbilicus are named after sister Mary Joseph who (was a nurse and surgical assistant to Dr. William Mayo at St. Mary’s Hospital in Rochester) in recognition of her observation of the link between umbilical nodules and intraabdominal malignancy.[1]

The arterial, venous and lymphatic drainage system of the umbilicus represents possible routes by which metastatic tumor cells can implant into the umbilical region. The common primary sites of malignancy for umbilical metastasis are gastrointestinal tract and the genitourinary tract, which are mostly adenocarcinomas. Rare primary sites for metastasis to the umbilicus include gallbladder, liver, breast, lung, prostate, penis, peritoneum, lymphoma, bladder and kidney. In some cases the origin of the metastasis is unknown.[1,2]

The common cutaneous sites of metastasis from lung carcinoma are the chest wall and posterior abdomen. The neck region can also be involved.[3] However the umbilicus is an uncommon site for metastasis from lung carcinoma and has rarely been reported so far.[4,5]

Lung carcinomas metastasize commonly to liver, adrenal glands, bone, kidney and the central nervous system. It has also rarely been reported to metastasize to muscle[6] and the iris.[7]

SCCs rarely metastasize to the umbilicus. Cases of oesophageal SCC metastasizing to the umbilicus have been reported.[8] If immunohistochemistry facilities are available, cytokeratin 19 staining is useful for SCCs.[9]

In our case the patient first presented with an umbilical nodule and on receiving the histopathological report of squamous cell carcinoma, further investigations were done to look for a primary site, which revealed SCC of the lung. This is a rare and interesting presentation.

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REFERENCES