Research Paper

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Horner's Syndrome as a Presenting Sign in Metastatic Cancer of Ovary

Medical Science

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Dr Mukesh Kulhari	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur
Dr Babita Choudhary	Junior Resident, Department of Anaesthesia, SMS Medical College & Hospital, Jaipur
Dr Akshay Mangal	Senior Resident, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Raj Govind Sharma	Head of Department, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Suresh Singh	Associate Professor, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Pinakin Patel	Assistant Professor, Department of Surgical Oncology, SMS Medical College & Hospital, Jaipur
Dr Abdul Rauf Gauri	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur
Dr Shiv Singh	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur
Dr Pankaj Somani	Junior Resident, Department of General Surgery, SMS Medical College & Hospital, Jaipur

ABSTRACT

Horner syndrome is caused by a lesion affecting the sympathetic innervations of pupil and lids. Malignant tumour is the most common factor producing preganglionic Horner's syndrome. We report a case of Horner's syndrome in an adult woman having ovarian carcinoma with cervical metastasis .

Introduction-

Horner's syndrome is due to interruption of sympathetic innervation to eye at any point along the course. It is relatively a rare disorder characterized by miosis, ptosis, anhydrosis and enophthalmos. Ovarian cancer has metastasis to para-aortic and pelvic lymph nodes commonly and sometimes to supraclavicular, axillary and mediastinal lymph nodes. Supraclavicular lymph node metastasis in ovarian cancer causing Horner's syndrome is very rare association and till date no case has been reported. MRI Brain and CT scan of thorax are to be done to rule out other causes of Horner's syndrome.

Case Report-

We report a case of Horner's syndrome in a 38 years old female patient who presented with complaints of pain and lump in left side of neck and pain in abdomen. On examination a lump of 4.0*4.0cm size was present with firm consistency, mobile, not fixed to underlying structure in left cervical region. Ptosis and miosis were present in left eye. A large single lump of 10.0*11.0cm was palpable in hypogastric and right iliac fossa region with firm to hard consistency, mobile,well defined margins and intra-abdominal on straight leg raising test. Routine blood investigations, electrocardiogram and chest skiagram were within normal limits.

Fig1- showing left eye lid ptosis and neck lump on left side.

Ultrasonography of abdomen was suggestive of 103*69mm mixed echogenic lesion with central necrotic material in right adnexa. A complimentary computerised tomography scan of abdomen was done which suggested a heterogenous soft tissue density mass of 8.8*10.3*11.7cm size in right adnexal region. Ultrasonography of neck showed heterogenous hypoechoic mass of 51*39mm size in left supraclavicular region (?mitotic). Contrast enhanced computerised tomography of neck and chest showed ill defined heterogenous lesion of 53*50 *43mm in left supraclavicular region compressing left internal jugular vein (?metastatic lymph nodes). Multiple enlarged lymph nodes in left submandibular and left axilla and multiple fibrotic bands in left lung field were seen.

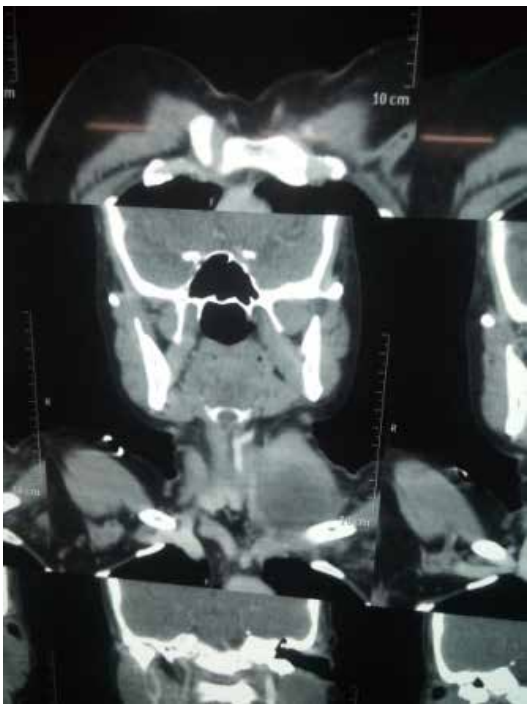

Figure2:- CECT neck and chest showing ill defined heterogenous lesion in left supraclavicular region compressing left internal jugular vein.

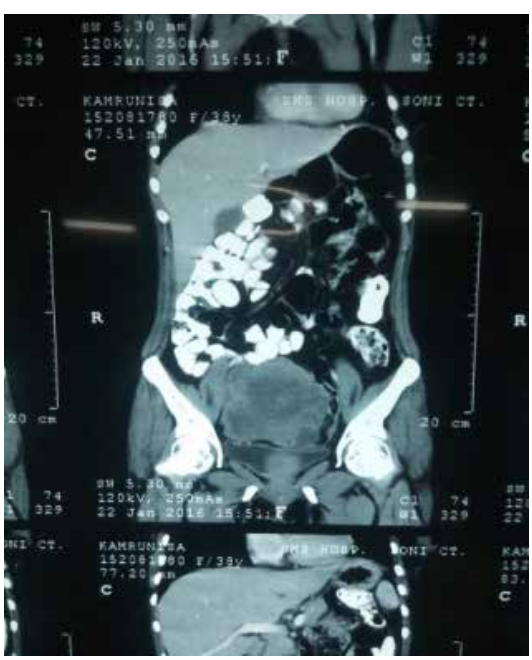

Figure3:- CT abdomen showing a heterogenous soft tissue density mass in right adnexal region.

Ultrasonography guided core biopsy of abdominal mass was suggestive of poorly differentiated carcinoma and fine needle aspiration cytology of left supraclavicular mass showed poorly differentiated metastatic anaplastic carcinoma. Magnetic resonance imaging of brain and CT scan of thorax were normal. Tumour marker CA-125 was 18.5U/ml (normal). When immunohistochemistry marker study of right adnexal mass was done, it showed cytokeratin7-positivity,CEA-positivity,thyroid transcription factor-1 – positivity,vimentin-positivity,CA-125-negativity and CA19-9-negativity. Based on clinical examination, radiological investigations and marker studies it was diagnosed as a case of metastatic cancer of ovary with Horner's syndrome.

Discussion-

Horner's syndrome or Oculosympathetic palsy is a combination of symptoms (miosis, ptosis, anhydrosis, enophthalmos) caused by damaged sympathetic trunk.[1] It may be congenital or acquired. Acquired Horner's syndrome has diseased or iatrogenic etiology. Causes of the Horner's syndrome are syringomylia, multiple sclerosis, brain tumour, lateral medullary syndrome, thyroid cancer and thyroid surgeries, pancoast tumour, trauma to neck, carotid artery and aneurysm, sympathectomy, cervical plexus block and metastatic neck lymph nodes.[2] Pathophysiology of syndrome is deficiency of sympathetic activity on ipsilateral side due to lesion of hypothalamospinal tract or preganglionic lesion (compression of sympathetic chain by lung tumour) or postganglionic lesion at the level of internal carotid artery.[3]

Ovarian cancer that starts in an ovary, may present with vague symptoms. These symptoms include bloating, pelvic pain, abdominal swelling and loss of appetite.It spreads to lining of abdomen, bowel and bladder, lymph nodes, liver and lungs.[4] The most common routes of spread of ovarian cancer are lymphatic dissemination and transcoelomic.[6] Most frequently involved sites are para aortic and pelvic lymph nodes but other sites may be left supraclavicular, axillary and mediastinal lymph nodes.[7] Diagnosis is based on history, clinical examination and radiological investigations (i.e., ultrasonography, CT Scan, MRI).Tumour markers (CA-125,beta-HCG, LDH, ALP) are used in ovarian cancer diagnosis and CA-125 is used for follow up. Diagnosis of ovarian cancer is confirmed by tissue biopsy. Treatment includes combination of surgery,radiation therapy and chemotherapy.

Conclusion-

Ovarian cancer with supraclavicular lymph nodes metastasis causing Horner' s syndrome is a very rare condition and till date no such case has been reported. Thus Horner' s syndrome may be used as a sign of metastatic ovarian carcinoma.

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