Sister mary joseph nodule as a clinical sign in a case of advanced gastric carcinoma

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ABSTRACT

Sister Mary joseph nodule as a cutaneous marker of gastrointestinal and pelvic malignancies almost always implies advanced stage of malignancy with poor survival rates and palliative care as the only treatment modality in majority of cases.

Keywords: Immunohistochemistry, CECT abdomen

Introduction

Sister Mary joseph nodule has been described as a rare cutaneous manifestation of advanced gastrointestinal and pelvic organs malignancy which almost always indicates a poor prognosis for the patient. We hereby present a case report of advanced carcinoma stomach with presence of this clinical sign.

Case report

A 70 year old male was admitted to our institute with complaints of dyspepsia, epigastric fullness, recurrent vomiting, loss of weight and apetite with on and off bouts of hemetemesis. On physical examination, patient was emaciated, pale and jaundiced.

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On local examination abdomen was distended and there was a nodular periumbilical mass present which was hard in consistency with irregular margins and fixed to abdominal wall (figure 1). On hematological investigations, his Hb was found to be 7g and liver function tests were deranged (SGOT 85IU/L SGPT 96 IU/L ALP 109 IU/L Total bilirubin to be 2.4mg/dl). His USG whole abdomen revealed an irregular hypodense wall thickening in pyloric antrum with loss of gut signature .Few target lesions were also noted mainly in left lobe of liver suggestive of metastasis along with with moderate hepatomegaly and mild to moderate ascites. CECT abdomen confirmed the findings and revealed an irregular circumferential hypodense thickening in pyloric antrum region with maximal wall thickness of 1 cm and length of segment being around 3 cm with few enlarged lymph nodes noticed along celiac axis and lesser sac and multiple target lesions present in left lobe of liver largest of size 1.5cm. Patient underwent UGI endoscopy with biopsy of lesion which on histopathological examination revealed poorly

differntiated gastric adenocarcinoma. Percutaneous biopsy of periumbilical mass also revealed same histological findings (figure 2) and thus a provisional diagnosis of advanced gastric carcinoma with Sister mary joseph nodule was made. Patient was planned to be put on chemotherapy and palliative care but lost follow up.

Discussion

Sister Mary joseph nodule is rare cutaneous manifestation of advanced metastatic malignancy pertaining to gastrointestinal tract mostly in males and pelvic organs in females however no generalizations can be made and when present, it is usually an indication of advanced malignancy or recurrence suggesting a grim prognosis for patient with average mean survival reported being 10-11 months[1-3]. It was first reported by Sir Hamilton bailey in honour of Sister Mary Joseph of Mayo's clinic who noticed several cases of advanced malignancy patients having nodular swelling in umbilical region while painting and draping the patients[4]. Most common malignancies found to have this unique presentation include those of stomach, ovaries, large bowel, pancreas and rarely lungs, breast and hematological malignancies. Though all malignancies are found to be in advanced stage, prognosis has been found to be better in nodules secondary to ovarian malignancy and if there is a single nodule. Its mechanism is still unclear but possible hypothesis include direct extension from anterior peritoneal surface or via extensive network of vascuiar and lymphatic channels which umbilicus shares with visceral organs or via its connection with embryological remnants [5,6].Clinically patient may present with features of swelling per se like painful nodular swelling of variable hues and size ranging anywhere from 0.5-5 cm having hard consistency and irregular margins with or without superficial excoriation, ulceration, fissuring and serous or purulent discharge which may be confused with local cellulitis or eczema[7-9] or with features of underlying malignancy like hemetemesis, hematuria, melena, dyspepsia, loss of weight and apetite, anemia etc. Differential diagnosis include a variety of benign and malignant clinical conditions like ventral hernia, endometriosis, neavis, epidermal inclusion cysts, keloids, hypertrophic scar, seborrhic keratosis, umbilical granuloma, incarcerated venral hernia and rarely primary malignancy of umbilicus[10,11]. The evaluation modalities include FNAC which is cheapest and most easily available diagnostic modality[12]. It is usually followed by percutaneous biopsy which usually depicts the histologial diagnosis, the most common being adenocarcinomas though rarely it may be squamous cell carcinoma, leimyoma, leiomyosarcoma and this may be subjected to immunohistochemical analysis with corresponding antibodies Most of umbilical metastasis have unique morphological and immunohistochemical properties based on which primary site can be found in most of the cases[13]. Based on clinical symptoms, patient is then subjected to relevant hematological and radiological investigations like CECT abdomen and pelvis, upper GI endoscopy, colonoscopy as clinical scenario may suggest to gauge the extent of tumour and its local and distal spread..Finally the modality of treatment medical (chemotherapy) or surgical is decided on individual basis as most of the cases are fairly advanced and in majority supportive measures and palliative care is all that we can offer to the patient though in some patients depending upon site and general condition of the patient, life expectancy may be prolonged by multimodality treatment[14-15].

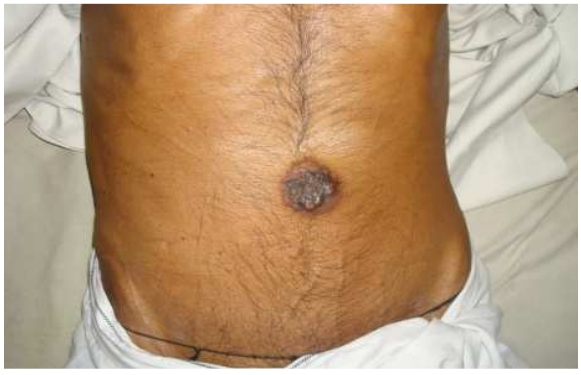

Figure 1: Gross appearance of sister mary joseph nodule

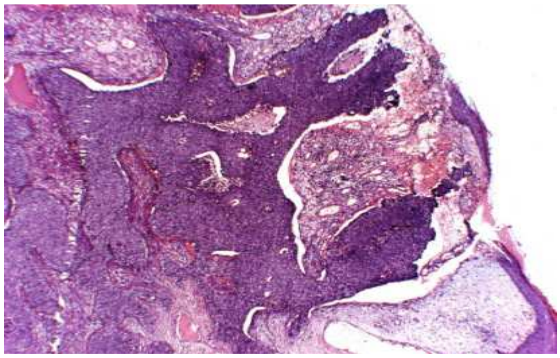

Figure 2: Sister mary joseph nodule on histopathological examination

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