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Unusual Site of Distant Metastasis in A Carcinoma Larynx Patient

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Abstract: *Carcinoma larynx has a propensity for metastasis in neck nodes. Distant metastasis in larynx cancer are rare and the usual sites are lung, liver and bones. We report a case of carcinoma larynx post local treatment presenting with distant metastasis in abdominal wall. This diagnosis was made on clinical suspicion and confirmed by cytology and abdominal imaging.*
Keyword: *Carcinoma larynx, distant metastasis, abdominal wall*

I. Introduction

The overall incidence of distant metastases is 8.5%-20% [1, 2]. Distant metastases are related to advanced local disease (T3 + T4), lymph node metastases at presentation (N+), tumor location (hypopharynx) and locoregional tumor recurrence [1]. The median interval between diagnosis and the occurrence of distant metastases is 8 months. The lungs (36.4%), bone (34.0%), and liver (23.8%) remain the most-frequent metastatic sites [2].Here we report a case of carcinoma larynx having metastasis to abdominal wall(R Rectus abdominis muscle) in addition to abdominal lymph nodes, mesentery, omentum and rib.

II. Case report

A 50 year old male was admitted with a painful abdominal wall swelling of one week duration. He was a known case of squamous cell laryngeal cancer at supraglottic site, T3N1M0, treated with external beam radiotherapy (60 Gy/ 30#) eight months back by department of ENT. He presented to department of Surgery OPD, eight months later, with an abdominal lump [Fig 1]. On enquiry he revealed significant pain over the swelling. There was no history of abdominal wall violation for any feeding procedure or instrumentation. Examination of the lump showed it to be 7 by 5 cms, just above and to the right of the umbilicus. It was found to be originating from the abdominal wall muscle(R Rectus Abdominis) and extending to involve the overlying subcutaneous tissue and skin. There was no erythema or cutaneous changes. Liver was not palpable. FNAC of this lump revealed hyperchromatic squamous cells arranged singly and in clusters and was diagnosed as metastasis from squamous cell malignancy [Fig 2]. Contrast CT of the abdomen confirmed the presence of R rectus muscle metastasis and also revealed widespread omental and mesenteric metastases along with abdominal lymphadenopathy [Fig 3] with ascites and a lytic lesion in the L tenth rib posteriorly. The liver and visualized lungs were normal. X-ray chest was also normal. ENT examination showed residual growth with persisting neck nodes. In view of advanced nature of disease, patient was planned for best symptomatic palliation with opiods analgesics. However patient succumbed to the disease 2 months later.

Fig 1. Abdominal lump in a patient of laryngeal carcinoma

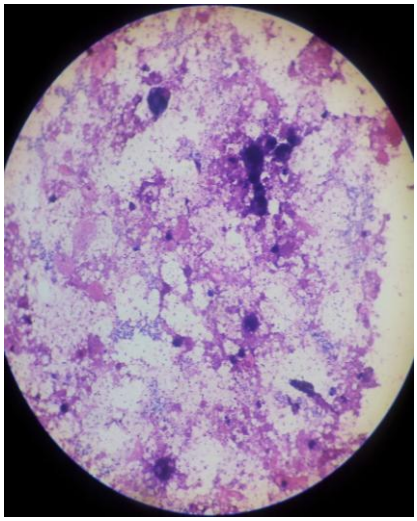

Fig 2.FNAC smears showing hyperchromatic Squamous cells arranged singly and in groups

Fig 3.CT scan showing neoplastic infiltration of R rectus abdominis muscle and mesenteric masses

III. Discussion

The overall incidence of distant metastases in laryngeal carcinoma is 7.2%-9.6% [1-3]. Distant metastases are related to advanced local disease (T3, T4), lymph node metastases at presentation (N+), tumor location and locoregional tumor recurrence. A meta-analysis of variables which predispose to a higher incidence of distant metastases indicate that tumor location (hypopharynx > larynx), advanced primary disease (T3, T4), regional disease (N+), locoregional recurrences, and advanced regional metastases (N2 + N3) are statistically significant [1]. Stage grouping seems to be a better indicator of DM rather than T or N stage alone. The most common site of metastasis is the lung [2].

Most distant metastases are detected by the patients themselves or by indicative symptoms [4]. Screening for distant metastases in head and neck cancers, and laryngeal cancer more specifically, is currently not well established [6]. The majority of these occur within 2 years [5], and the most common sites for metastases are the lung (45-85%), bones (10-30%), and liver (5-22%) [5,7,8]. This patient presented within 8 months of diagnosis of the primary and his distant metastases were at unusual sites; abdominal wall, omentum, mesentery, abdominal lymph nodes and rib, with liver and lung being normal.

Few reports of soft tissue metastasis from laryngeal cancer exist though the skin has been described as an infrequent but poor prognostic location for a metastatic lesion [7]. Laryngeal squamous cell carcinoma metastasizing to skeletal muscle is extremely rare and review of literature revealed few cases [6, 8-10]. Although skeletal muscles represent approximately 50% of total body mass and receive a large proportion of total cardiac output, hematogenous metastasis to skeletal muscle are extremely uncommon and are of pulmonary origin[8], though this patient did not have pulmonary metastasis. Another mechanism of abdominal wall metastasis from Head and Neck cancers including laryngeal is after percutaneous, laparoscopic or incisional procedures and is widely hypothesized to direct seeding of cancer cells [11]. In view the widespread abdominal metastases and normal lung and no history of abdominal instrumentation this patient had probably a hematogenous metastasis.

Treatment options depending upon the clinical setting include observation, radiotherapy, chemotherapy and excision; these approaches rarely alter the patient outcome. Although the prognosis considered of such cases is poor, surgical excision may be indicated for isolated muscular metastasis [6]. The prognosis associated with skeletal muscle metastasis is thought to be poor, consistent with fact that it generally occurs as a feature of systemic spread [8] as was evident in our patient.

IV. Conclusion

Follow –up of patients treated for carcinoma larynx should include a thorough clinical examination to detect unusual distant metastatic sites. This may be guided by patient symptoms and confirmed by cytology and CT imaging. Metastatic abdominal wall and intra abdominal involvement indicates systemic spread; heralding a poor prognosis.

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