



ORIGINAL RESEARCH PAPER

General Surgery

CUTANEOUS SECONDARIES OF SQUAMOUS CELL CARCINOMA WITH UNKNOWN PRIMARY – A RARE CASE REPORT

KEY WORDS:

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ABSTRACT

About 3–5% of all malignant neoplasms are metastatic Cancer of Unknown Primary Site (CUP). Following a detailed medical history, meticulous clinical examination, and full diagnostic work-up, CUP comprises a heterogeneous group of metastatic tumours for which no primary site can be identified. Because there is no agreement on the best diagnostic practises and treatment options, some writers have indicated that the prognosis for this cancer is poor. Chemotherapy has always been the mainstay of care for those with CUP. We experienced a case of cutaneous secondaries from unknown squamous cell carcinoma primary. We present this case together with a brief literature assessment.

INTRODUCTION

3-5% of all malignant neoplasms are thought to be caused by metastatic cancer from unknown primary sites, or CUP. CUP is defined as metastatic cancer from an unknown primary site for which no original site can be found despite using all available tests. The definition of CUP includes patients who present with histologically confirmed metastatic cancer in whom a detailed medical history, complete physical examination, full blood count and biochemistry, urinalysis and stool occult blood testing, histopathological review of biopsy material with the use of immunohistochemistry, chest radiography, computed tomography (CT) of the abdomen and pelvis and, in certain cases, mammography fail to identify the primary site. The gastro-intestinal system, the pancreas and bile duct system, and the lungs were the main sites. It was more difficult to find the primary lesion in poorly differentiated carcinoma cases. Recently, following reporting the role of positron emission tomography (PET) scan in various domains, the diagnostic technique to discover the unknown primary site has been become advanced. Cutaneous metastases (CMs) are a prognostically crucial diagnosis. CMs are not an uncommon occurrence, and this has been documented in 0.7-9 percent of all patients with cancer. The most common locations of original malignancy in patients who presented with CMs is adenocarcinoma commonly being breast cancer in women and lung cancer in males [2]. Metastases from original sites are typically identifiable, but occasionally this is not the case. It is extremely uncommon for squamous cell carcinoma to spread to the skin. Metastatic cancer of unclear origin is prevalent in 5-10 percent of all malignancies. CMs are typically linked to recognized main illnesses. 4.4 percent of all CM patients have a main site that cannot be identified.

Case Report

A 35 year old female came to our surgical OPD with chief complaints of swelling in the left thigh for past three months. Clinically swelling appeared to involve skin and subcutaneous region and was free from underlying fascia and muscles. There was no significant past history. No intervention was done for the swelling elsewhere. Basic investigations were done and proceeded to core needle biopsy and imaging. Biopsy revealed fragments of fibrofatty and fibro collagenous tissue with occasional cluster of polyhedral cells with moderate eosinophilic cytoplasm with vesicular nuclei and prominent nucleoli and occasional cells showing melanin pigmentation. So preoperative diagnosis of

malignant melanoma was made. further proceeded with staging investigation PET CT which revealed left thigh primary with ipsilateral inguinal, iliac lymph nodal spread and no evidence of distant metastasis. So Wide local excision of the primary tumour with adequate clear marginal and ilio inguinal nodal dissection was done. post operative events were uneventful. Post operative histopathology revealed skin with ulceration and necrotic inflammatory exudate on the surface. Underlying neoplasm composed of cells in sheet and cluster. The cells are pleomorphic polyhedral with clear to moderate eosinophilic cytoplasm, vesicular nucleus and prominent nucleoli. Numerous atypical mitosis are seen along with extensive necrosis and congestive blood vessels. Lympho vascular invasion noticed with all the margins free from tumour. Sections from Ilioinguinal nodal dissection specimen revealed 18 nodes of which 4 were positive for malignancy. Immunohistochemistry revealed strong positivity for P40 in around 80% of tumour cells. Melan A and HMB 45 are found to be negative. In the view of skin over the tumour being normal and strong P40 positivity, diagnosis of Secondary metastatic deposits probably from squamous cell carcinoma primary is made. Further investigation to evaluate other areas like lung, aerodigestive tract, genital region, anal region was done to look for primary. But Evidence for primary SCC was not found. So patient was managed with radiotherapy and adjuvant chemotherapy.



Figure 1 : Clinical Image Of The Swelling In Left Thigh Region – Anterior Aspect

DISCUSSION

CUP are categorized into four major subtypes by routine light microscopy criteria: (a) adenocarcinomas well-moderately differentiated, (b) undifferentiated or poorly differentiated adenocarcinomas, (c) squamous cell carcinomas and (d) undifferentiated neoplasms. Approximately half the patients will be diagnosed with metastatic adenocarcinoma, 30% will have undifferentiated or poorly differentiated carcinomas, 15% squamous cell carcinomas and the remaining 5% will have undifferentiated neoplasms. Cutaneous involvement may occur by three main mechanisms: direct invasion, local metastatic disease, or distant metastasis. According to some theories, primary tumors that invade veins, like kidney and lung carcinomas, are more likely to metastasize to the skin [5]. Clinical manifestations might range from being localized and nodular to being extensive and inflammatory. There are currently no workable algorithms for determining the primary of cutaneous metastatic cancers with uncertain origins. Despite doing several of the studies ourselves, we were unable to identify the primary source of the cancer. Patients with breast, lung, and kidney cancer frequently develop CMs. In the present situation the lung metastases arise following cutaneous involvement. Consequently, the lung itself is not the major site. His breast tissue is normal, and radiological examinations of his kidneys reveal no abnormalities. Additionally, the suspect's submandibular lump was examined because it might be the source. In our situation, biopsy samples taken from the submandibular lump and examined histologically reveal a malignant epithelial tumor. The submandibular gland is home to about 10-15% of salivary gland tumors, and 40-50% of these are cancerous. However, skin metastases from the submandibular gland are extremely uncommon. Therefore, in our case, a submandibular origin is less likely to be the primary tumor's source. Although oropharyngeal malignancies can spread to the face and neck, in this situation the oropharyngeal region is pathogen-free. 95 percent or more of liver cancers have a metastatic etiology. There are no known risk factors for hepatocellular carcinoma in our patient. The tumors in the liver are therefore seen as evidence of metastatic involvement.

The next step in this situation might be immunohistochemical staining with CK7, CK20, p63, and CD10. One-third of gastric carcinomas and pancreatic carcinomas (cholangiocarcinoma and urothelium) are CK7+/CK20+ carcinomas. The generally CK7+/CK20- tumors include lung, breast, endometrial, ovary, thyroid, salivary gland, and mesothelioma. Merkel-cell carcinomas of the large intestine and gastric adenocarcinomas are examples of CK7-/CK20+ tumors. Finally, frequently CK7-/CK20- cancers are carcinomas of adrenal cortex, liver, kidney, adrenal gland, prostate, and thymus. CD10, the common acute lymphoblastic leukemia antigen (CALLA), can be utilized to characterize malignant cells identified as common acute lymphoblastic leukemia cells. Both mature germinal center B cells and pro-B cells express CD10 during normal lymphoid ontogeny. Acute lymphocytic leukemias with precursor B-cells express CD10 in about 75% of cases. The neutral endopeptidase antigen is also present on developing thymocytes and a number of normal and malignant cell types. The p63 gene, a recently identified homologue of the p53 gene, has been reported to be essential in the development of epithelia and is consistently expressed by basal stem cells of stratified epithelium and myoepithelial cells of breast and salivary glands.

Immunohistochemical staining normally does not provide further understanding regarding primary origin. These patients have a dismal prognosis if immunohistochemical staining reveals an anaplastic epithelial tumor rather than chemotherapy-responsive cancers like lymphoma and germ-cell tumors. Because CMs are typically a terminal diagnosis in cancer patients, signifying impending mortality, the concept

implies that extensive multisystem workups are typically not useful in such circumstances. According to the literature, there hasn't been enough research done on patients with CMs from unclear main causes. For the purpose of developing a suitable methodology, we think that more information on these patients are required.

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