



# ORIGINAL RESEARCH PAPER

# Oncology

## SOLITARY SCALP METASTASIS FOLLOWING GASTRECTOMY IN A CASE OF CARCINOMA STOMACH-A RARE PRESENTATION

**KEY WORDS:** Scalp metastasis, Cutaneous metastasis, Carcinoma stomach, Gastrectomy

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<b>ABSTRACT</b>	<p><b>INTRODUCTION:</b> Cutaneous metastasis from gastric carcinoma is rare and it usually signifies disseminated disease and poor prognosis. Here we report a case of solitary scalp metastasis following subtotal gastrectomy.</p> <p><b>THE CASE:</b> This 48 years old lady presented with an erythematous swelling over right occipital region of scalp. She had undergone subtotal gastrectomy one year ago and completed adjuvant chemotherapy. FNAC done from the scalp lesion had revealed poorly differentiated adenocarcinoma, same as primary tumour. Whole body PET-CT scan excluded distant metastatic disease. Wide local excision of the scalp lesion was performed. Histopathology was suggestive of metastatic adenocarcinoma.</p> <p><b>CONCLUSION:</b> Scalp metastasis is rare, but solitary scalp metastasis is reported once in literature in our knowledge. Cutaneous metastasis imparts poor prognosis and palliative therapy mainly but in our case, the patient is on follow up for last 15 months post-treatment.</p>

## INTRODUCTION

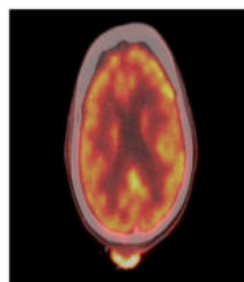
Cutaneous metastasis from internal malignancy is quiet uncommon with a reported frequency varying between 0.7% and 9 %, and among which breast, lung, colorectal and oral mucosa carcinoma are most likely to metastasize to the skin<sup>1</sup>. Cutaneous metastasis to gastric carcinoma is rarer even more and mainly identified around the vicinity of the primary one mainly abdominal wall and umbilicus<sup>1-3</sup>. Gastric cancer metastasis to scalp is very rare and few cases are reported in literature<sup>4-7</sup>. Here we report a case in a 48 years old lady presented with solitary scalp metastasis following subtotal gastrectomy with curative intent.

## CASE PRESENTATION

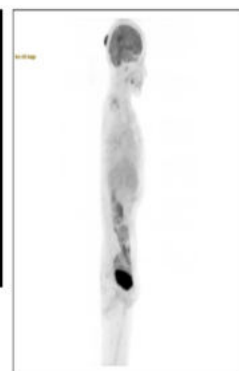
This 48 years old lady known diabetic and hypothyroid on medication presented at our Out-Patient Department of our hospital on November 2014 with pain abdomen for last 1 month associated with melena for same duration. She had been treated for the last 1 year for severe anaemia and repeated blood transfusion. Past operative history revealed hysterectomy and cholecystectomy 7 years and 6 years ago respectively. Clinical examination revealed severe pallor without any organomegaly or lump in abdomen or left supraclavicular lymph node or features suggestive of gastric outlet obstruction. Staging investigation revealed gastric antral growth with perigastric lymphadenopathy without any other organ involvement or distant metastasis. After optimisation, the patient had undergone subtotal gastrectomy on 26<sup>th</sup> November 2014. Histopathology revealed - pT3N1Mx poorly differentiated intestinal type adenocarcinoma. Post operatively she received Adjuvant Chemotherapy - six cycles with Oxaliplatin 175 mg and Capecitabine 1gm twice daily for 14 days per cycle.

Patient was on regular follow-up until December 2015 when she developed a scalp swelling. FNAC from the scalp lesion suggested metastatic deposits of adenocarcinoma. FDG -PET CT scan revealed a hyperdense lesion at right para-median occipital region of scalp 3.5 cm x 1.8 cm (SUV Max 10.2) (Fig. 1). No other significant metabolically active lesions were found (Fig. 2 and 3). As per decisions of In-hospital Tumour Board, Wide local excision was done on 3<sup>rd</sup> January 2016. Histopathology suggested metastatic adenocarcinoma (Fig. 4, 5 and 6). Post operatively she

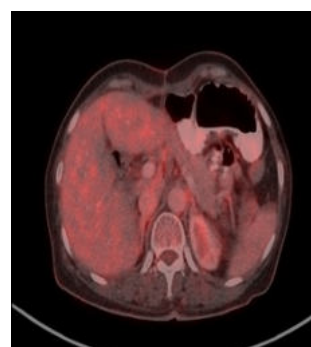
had received adjuvant 2<sup>nd</sup> line Chemotherapy with Docetaxel 105 mg & Carboplatin 450 mg for another six cycles. This patient is on follow up for last 15 months and is doing well.



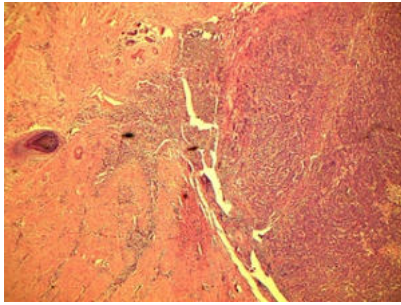
**Figure 1: FDG PET-CT showing lesion at right para-median occipital region of scalp**



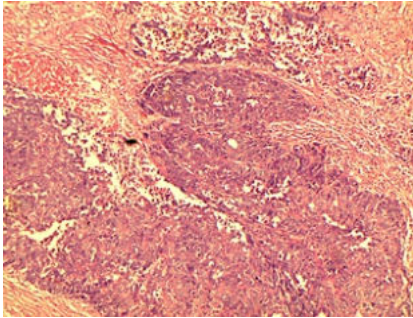
**Figure 2: PET-CT scan lesion showing isolated scalp lesion**



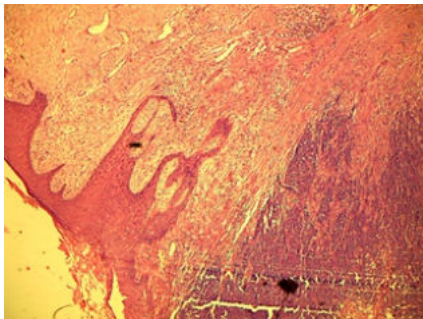
**Figure 3: FDG PET-CT showing no significant uptake at post-operative site**



**Figure 4: Histopathological examination showing Scalp metastasis with hair follicle in 10x HE stain**



**Figure 5: Histopathological examination showing Scalp metastasis with malignant glands in 10x HE stain**



**Figure 6: Histopathological examination showing Scalp metastasis with skin epithelium in 10x HE stain**

## DISCUSSION

Scalp metastasis is a rare occurrence in <2% of patients with malignant metastases. Lung cancer followed by colorectal, liver and breast cancer have been recognized as the primary tumour most frequently metastasizing to the scalp<sup>8</sup>.

Cutaneous metastases from gastric adenocarcinomas are rare, developing in <5% of patients. They have been reported in the axilla, chest, face, hand and around the umbilicus. The mechanisms which pre-dispose visceral cancers to develop cutaneous metastases are poorly understood. Cutaneous metastasis mostly denotes poor prognosis as it often occurs in the terminal stage of cancer, indicating that underlying cancer has spread extensively. The mean survival for patients with Cutaneous metastasis ranges between 1 and 34 months depending on the tumour type<sup>2</sup>. The majority of patients exhibit concomitant metastases to other organs<sup>9</sup>. Imaging with CT, MRI and/or PET, may reveal further information. Pathological biopsy must be performed whenever necessary. Systemic chemotherapy is the recommended management and one of the few case reports showed better survival<sup>4</sup>.

The distinctive features of this case report are that

- It's a solitary isolated scalp metastasis without any concomitant lesion anywhere as most previous case reports showed synchronous metastasis in lung, liver, pelvis or lymph nodes<sup>9</sup>.
- Though scalp metastasis signifies poor survival (< 3 months), our patient is on regular follow up for last 15 months.

## LIST OF ABBREVIATIONS

FNAC – Fine Needle Aspiration Cytology  
PET-CT – Positron Emission Tomography – Computed Tomography  
FDG – Fluorodeoxyglucose -<sup>18</sup>F FDG  
CT – Computed Tomography  
MRI – Magnetic resonance imaging

## AUTHOR'S CONTRIBUTIONS

SH and IM drafted the manuscript and conducted the literature search. AG and SS performed the operation and reviewed the manuscript. All authors read and provided the final approval for publication.

## CONFLICTS OF INTEREST

None declared. The authors have no financial, consultative, institutional, and other relationships that might lead to bias or conflict of interest.

## ETHICAL APPROVAL

Not applicable.

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