

## An Unusual Case of Carcinoma Stomach: A Case Report

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**Introduction**

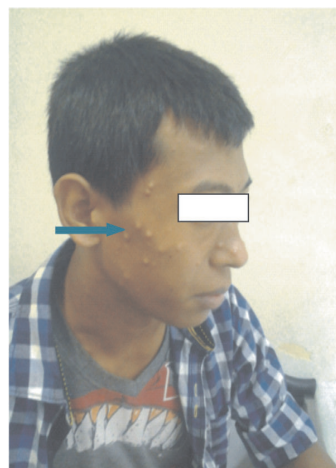
According to World Health Organization (WHO) classification, gastric signet ring cell carcinoma (SRC) a histologic type is primarily based on the typical microscopic characteristics of the tumour and not the biological behaviour.[1] SRC has been classified into “diffuse” type by Lauren *et al*, “infiltrative” type by Ming *et al* and “undifferentiated” type by Sugano *et al*.[2] To establish the scale of tumour aggressiveness related to prognosis, the WHO and the Union International Contra La Cancrum (UICC) adapted a grading system in which SRC has been classified as high grade type.

Carcinoma of the stomach is still the second and fourth most common cause of cancer in males and females respectively, although the incidence and mortality rate have fallen drastically over the past five decades in many regions.[3] Despite advances in diagnosis, the disease is usually detected after invasion of muscularis propria, because most patients experience non specific symptoms in the early stages and the classical triad of anemia, weight loss and refusal of meat based food is seen only in advanced stages.[4]

Stomach cancer incidence is known to increase with age with peak occurring at 60-80 years. Cases in patients younger than 30 years are very rare.[5] In India, the age range for stomach cancer is 35-55 years in the south and 45-55 years in the north with male preponderance.[6]

*Case Report*

The patient was a 21 year old male who presented with history of dull aching and continuous pain in the epigastric region of one month duration. Patient had experienced three episodes of malena during this time. He started noticing small nodules in the skin on the face (Fig 1) and trunk (Fig 2) two weeks after the onset of epigastric pain. Patient also gave history of multiple syncopal attacks especially when he bends. On examination he

**Fig 1: Multiple Subcutaneous Nodules**

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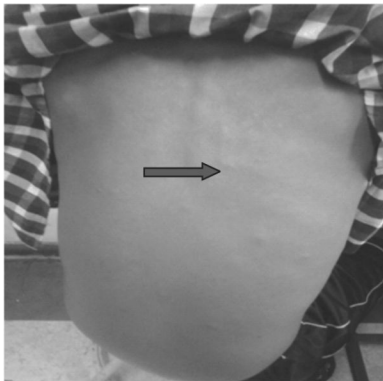
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was found to have pallor, bilateral cervical, axillary and inguinal lymphadenopathy which was rubbery, non tender and non matted. There were multiple subcutaneous nodules on the face and trunk. Per abdominal examination revealed tenderness in epigastric region with deep seated palpable lymph nodes. There was no family history of any carcinoma /leukemia.

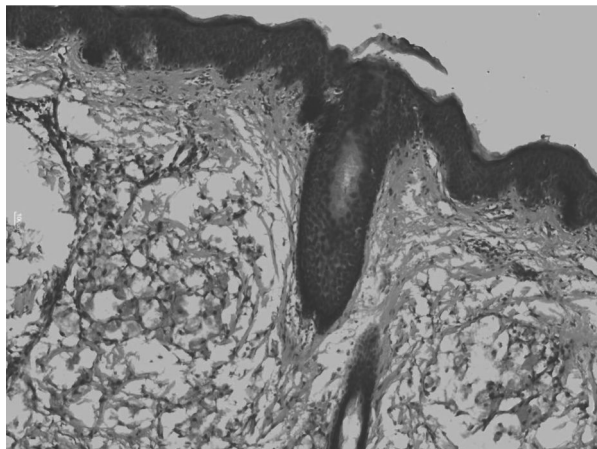
X Ray Chest revealed a huge mediastinal mass. UGI endoscopy revealed multiple nodules in the gastric lining involving the entire stomach and not confined to a particular area of stomach.

Biopsies were taken from subcutaneous nodule (Fig 3), cervical lymph node (Fig 4) and inguinal lymph node revealed invasion by signet ring cell carcinoma. Biopsy taken from gastric antrum (Fig 5) also showed signet ring cell adenocarcinoma of stomach. Thus, the patient was a case of Signet Ring Cell Adenocarcinoma, stomach, Stage IV.

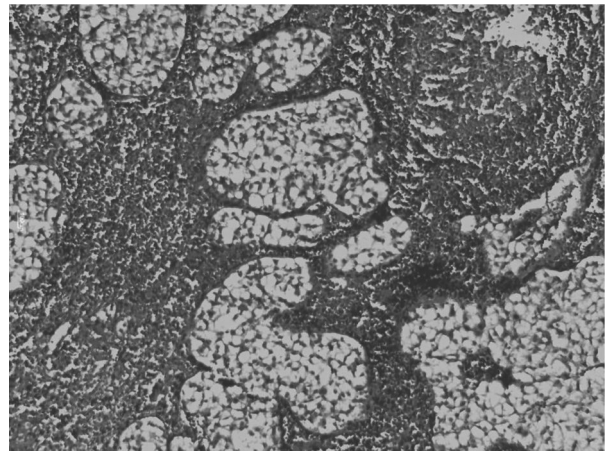
**Fig 2: Multiple Nodules on Back**



**Fig 3: Photomicrograph (20 X): Showing Signet Ring Cells Invading the Dermis**



**Fig 4: Photomicrograph (20 X): Showing Signet Ring Cells Invading the Lymph Node**



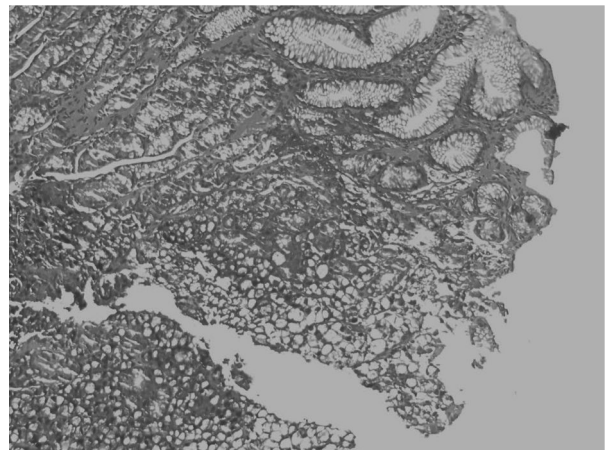
## Discussion

The incidence of gastric carcinomas varies widely depending upon the geographic region analyzed. It has been shown to be as high as 80-82 per 100,000 inhabitants in some areas in Japan and as low as <10 per 100,000 inhabitants in USA and Mexico.[7]

Peak incidence of stomach carcinoma is at 60-80 years of age.[8] Yeole BB *et al* and Jemal *et al* found a slightly lower age for stomach carcinoma in India; with age range of 35-55 years in south and 45-55 years in north.

There are very few studies in literature of SRC in young individual. One such study was

**Fig 5: Photomicrograph (20 X) - Showing Signet Ring Cell Carcinoma of Stomach**



by Lopez Basave *et al*[9] who studied gastric cancer in young people under 30 years of age. In their study, they found that the predominant histological pattern was SRC (44%) and 83% patients were in stage IV at the time of diagnosis. With respect to symptoms 70% of their cases presented with pain epigastrium.

Similar study by Smith *et al*[9] concluded that in patients less than 35 years, SRC was the dominant histological pattern (93%), significantly higher rate of nodal metastasis (94%) and distant metastasis (81%) and stage IV disease (90%) as compared to older patients.

Santoro *et al*[10] also concluded that that in younger age group, SRC pattern (73%), lymph node metastasis (59%) and stage IV disease (49%) was more common as compared to older people.

However, published reports of SRC stomach in age group less than 25 years is less common. One such report was published by Satti SA *et al*[11] where SRC stomach was described in 13 year old boy.

Recently germline mutations in the E-cadherin/CDH 1 gene have been identified in families with an autosomal dominant inherited to gastric carcinoma of diffuse type. Criteria have been proposed to define familial gastric cancer syndromes and include review of the histopathology and pedigree analysis of any family with an aggregation of gastric cancer cases.[12]

## Conclusion

Studies have shown that gastric cancer in young adults tends to be more advanced thereby suggesting a more aggressive tumour biology that results in often futile surgical interventions.

There is an urgent need to have a high index of clinical suspicion for early detection of this cancer and strategies for earlier diagnosis together with effective new strategies are desperately needed to attenuate the lethality in these unfortunate patients.

## Conflict of Interest

All authors have none to declare.

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