

A PROSPECTIVE STUDY IN DETECTION OF EBV AND H.PYLORI IN GASTRIC CARCINOMA.

Senthil Raj¹, K Raja Chidambaram²¹Assistant Professor, Department of General Surgery, Dhanalakshmi Srinivasan Medical College, Perambalur, India.²Professor, Department of General Surgery, Dhanalakshmi Srinivasan Medical College, Perambalur, India.

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Corresponding Author:
Dr. K Raja Chidambaram
 Email: drkrajachidambaram@gmail.com

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Abstract

Background: Gastric cancer is the 4th most common cancer in the world (9% of all cancers) after lung, breast, and colorectal cancer. Over all, it is the 2nd most common cause of death but in some Asian countries, it is still the 1st common cause of cancer death. It is usually seen in patients >50 years. Worldwide the incidence of new cases of gastric cancer in 2002 was 934,000 of which 56% cases were from Asia. Materials and methods employed in this prospective observational study were including patients attending general surgery department in IPGME&R SSKM Hospital, Kolkata. Patients included in the study were those who were diagnosed with gastric adenocarcinoma for a study duration of one and half years. The results drawn showed Out of 8 tumor samples, 4 samples showed positive for EBV (EBNA2) while 6 of the tumor samples showed positive for H. pylori (VacA gene).

INTRODUCTION

Gastric cancer is the 4th most common cancer in the world (9% of all cancers) after lung, breast and colorectal cancer. Proximal stomach is the commonest site of affection in western countries while distal stomach is more commonly affected in Asian population. The incidence of gastric carcinoma is decreasing in western countries and increasing in the rest of the world.^[1] Over all, the commonest histopathological type is adenocarcinoma & in Asian countries, it is the intestinal type due to intestinal metaplasia.^[5]

This study addresses the Detection of EBV and Helicobacter pylori in gastric tumour tissues in a tertiary care hospital in Eastern India.

Aims & Objectives

Detection of EBV and Helicobacter pylori in gastric tumour tissues.

MATERIALS AND METHODS

Study Area: Patients attending Department of General Surgery, IPGME&R and SSKM Hospital, Kolkata.

Study population: Patients with diagnosed Gastric Adenocarcinoma

Period of study: One and half years.

Sample size: 50 operable, 50 inoperable, 50 normal population sample without any gastric ailment.

Study Design: Prospective observational.

Parameters to be studied

1. Demographic characteristics of study population
2. Symptomatology of the patient
3. Examination findings of the patients
4. All blood investigations along with tumor markers & radiological findings.
5. Operability of the tumor
6. Outcome of the surgery & follow-up

Inclusion Criteria

All cases of gastric carcinoma attending study area within the mentioned time line.

Exclusion Criteria

Patient unwilling to take part in this study.

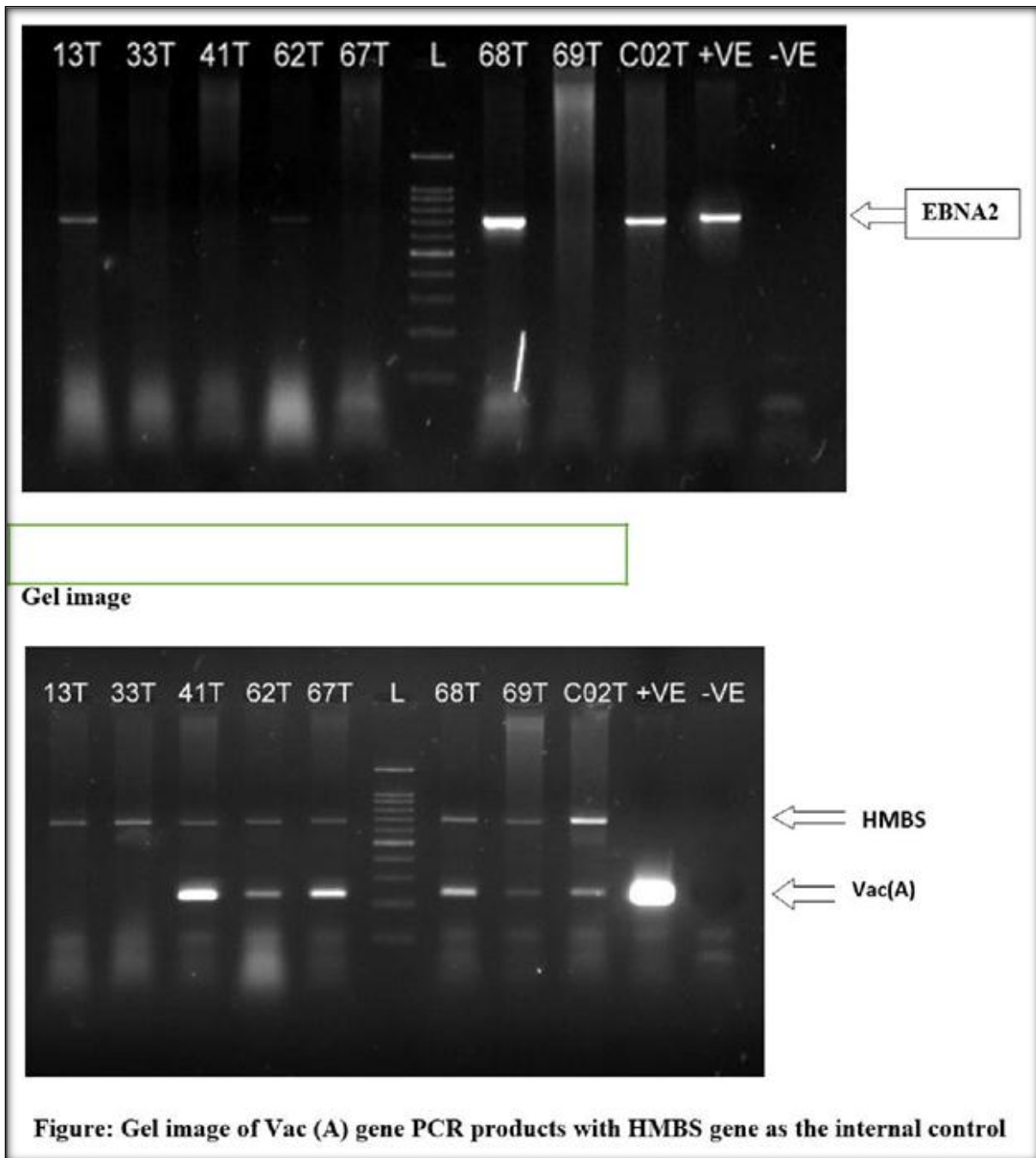
Plan for analysis

1. Detailed History
2. Clinical Examination – requirements – Gloves
3. Patient Consent Form
4. Performa for Data Collection
5. Pathological tests- Hematological & Biochemical
6. Radiological tests - USG (W/A), CECT (W/A)

Study tools and technique

1. Preoperative 8 ml blood –1 ml in EDTA and 7 ml will be used to extract serum.
2. Postoperative 5 ml blood (7 days after operation).
3. Tumour tissue (from the tumour margin) & adjacent normal tissue (at least 3cm apart).
4. Blood sample from healthy individual 10 ml to be used as control in the study.

RESULTS



CONCLUSION

For gastric cancer, infections with *Helicobacter pylori* and or Epstein Barr Virus are the main etiologic factor in all population. Out of 8 tumor samples, 4 samples showed positive for EBV (EBNA2) while 6 of the tumor samples showed positive for *H. pylori* (VacA gene). A number of factors, including hereditary, environmental, occupation and social factors are now recognized as potential contributors to the development of gastric cancer (GC) (Epplein et al., 2014; Karimi et al., 2014; Nie et al., 2017; Sano, 2017). For gastric

cancer, infections with *Helicobacter pylori* and or EBV are the main etiologic factor in all populations, although most infected individuals do not develop cancer.

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