

Section 1

Information regarding Project

Contract number- RG/2005/HS/13

Title of the Project-“Irritable Bowel Syndrome (IBS):an inflammatory disease.”

Principal Investigator-Dr.A.P.de Silva

Co-Investigators-Dr.A.S.Dassanayake

Prof.H.J.de Silva

Institution-Faculty of Medicine, University of Kelaniya

Date of award-27.7.2005

Date of completion of project-15.12 2009

Total allocation of funds Rs.400000

Total spent- Rs 637789.00

Number of research students employed –One student

Post graduate degree completed with dates -None

Number of Technical Assistants employed-One

Publications during the reporting period-Three

Section 2

Executive Summary of the Project

Background

There is evidence for potential roles for gut flora and the host immune response in the pathophysiology of IBS, and especially, for low grade colonic mucosal inflammation in the pathophysiology of post-infectious IBS.

Objectives

To determine whether mucosal inflammatory cytokines; IL1, TNF alpha,IL10 play a role in the pathogenesis of IBS

To investigate for evidence of sub-clinical intestinal mucosal inflammation in diarrhea-predominant IBS (IBS-D) in a tropical setting.

Methodology

In a prospective study we investigated 49 patients with IBS-D based on Rome III criteria. All patients had normal ESR, CRP, TSH and stools reports. 14 individuals with a family history of colon cancer were selected as controls. Stools of patients and controls were tested for calprotectin. During colonoscopy, serial biopsies were obtained from the ileum, caecum, ascending, transverse and descending colon, and rectum. In addition to histology, tissue expression of IL-8 and IL-10 were assessed in biopsy specimens using semi-quantitative RT-PCR.

Major findings

- Colono-ileoscopy was macroscopically normal and faecal calprotectin was undetectable in cases and controls.
- Tissue expression of IL-8 was significantly higher and IL-10 significantly lower in cases compared to controls. There was a significant inverse correlation between IL-8 and IL-10 expression.