INTRODUCTION

Advances in techniques for recovering anaerobic bacteria and an awareness of the possible role they play in clinical diseases have permitted an assessment of the prevalence and significance of anaerobic microorganisms as a cause of infection (Nelson, 1987).

Obligatory anaerobic micro-organisms are thought of being among the earliest forms of life on earth. Despite their longstanding presence in large numbers as a part of our microbiologic environment, the inability of this group of microorganisms to grow in the presence of molecular oxygen, resulted in their being largely ignored by medical community until relatively recently (Onderdonk et al., 1990).

Normally, anaerobes are of low virulence for humans. Their multiplication and invasion are favoured by any means that removes oxygen from their environment or that otherwise lowers their oxidation-reduction potential (Brook, 1984).

A recent increase in number of Beta-lactamase producing strain of anaerobic gram-negative bacteria. In respiratory tract infection has been associated with increase failure rates of penicillins in eradication of these infections. The pathogenicity of these organisms is

apparent through their ability not only to survive penicillin therapy but also to protect penicillin susceptible pathogens from that drug.These bacteria require the administration of appropriate antimicrobial therapy directed against all pathogens in mixed infections **(Brook, 1987).**

With the possible exception of campylobacter enteritis anaerobic infections are not transmitted from person to person, and do not present problems of hospital cross infection **(Scand, 1984).**

The microbiological laboratories of many hospitals,now endeavor to isolate and identify anaerobes, as routinely as they do with the facultative and aerobic organisms. There has been an increasing request for anaerobic culture of specimens from patients, to identify, and determine the anaerobic susceptibility of isolated micro-organisms **(Smith, 1974).**

This increased interest in anaerobic bacterial infections, has resulted in,the development of better and more convenient methods, for the isolation, and identification of the causative microorganisms. Thus, with the advent of techniques,that allowed obligate anaerobes to be grown in the laboratory, scientists were recently able to begin characterizing, and studying this important group of micro-organisms. The role of anaerobes as important mediator of

infections, requiring specific therapy, therefore, has only recently been addressed (Onderdonk et al., 1990).

Anaerobic infections frequently involve several microorganisms, both aerobes and anaerobes, that have various susceptibilities and virulence. Several studies in experimental animals have shown that these organisms act synecrgistically to cause many infections, that is, a mixed inoculum of aerobes and anaerobes is able to produce disease, that can not be initiated by either group of organisms alone (Gorbach,1982 and Onderdonk et al., 1990).