Introduction

Spontaneous bacterial peritonitis (SBP) is a common and serious infection occurring in 8-27% of hospitalized patients with cirrhosis and ascites **(Thuluvath et al., 2001)**. It is also one of potential life threatening complications in ascitic cirrhotic patients with a mortality rate ranging between 30-50% **(Thevenot et al., 2004).**

Bacterial seeding of ascitic fluid is common however the route of infection is controversial. The two most likely routes include translocation through intestinal wall and heamatogenous spread **(Casafont et al., 1997).**

The diagnosis of SBP is based on a manual count of ascitic fluid polymorphonuclear (PMN) cells ≥ 250 cells/mm^3 **(Runyon, 2004).** This process is operator dependent although automatized cell counts may give comparable results. Further more ascitic fluid culture is insensitive and leads to delay in diagnosis **(Angeloni et al., 2003)**

Leucocyte reagent strips used to analyze urine samples were evaluated in an initial attempt to develop a rapid screening test for diagnosis of SBP with sensitivity ranged between 83%-100% **(Butani et al., 2004 and Vanbiervliet et al., 2002)**. Varied sensitivity of the leucocyte reagent strips in clinical trials make them suboptimal for diagnosis of SBP **(Nousbaum et al., 2007).**

Lactoferrin is an iron binding protein contained in PMN cells that is released on degranulation **(leffell and spitznagel, 1975)**. Titre of lactoferrin correlate with absolute neutrophil count in blood samples and presence of neutrocytic inflamation in body fluids such as sputum samples **(Martin, 1995).** In the gastrointestinal tract previous studies showed that lactoferrin provides a reliable marker of inflamatory diarrhea by measurement of fecal lactoferrin similar to the proposed utility of lactoferrin in diagnosis of SBP **(Parsi et al., 2008).**