



INTRODUCTION

Hepatitis B infection is a major health problem world wide. In the united states there are about 60,000 reported cases yearly. Hepatitis B tend to be relatively milder in infants and children and probably is frequently unrecognized. Although new born infants are rarely symptomatic, About 90 % of those infected become chronic carriers. the risk of developing chronic liver disease or hepato cellular carcinoma later in life is increased in these infants (*Beharman et al., 1996*).

Hepatitis B infection is reported to be the cause in 40% of cases of acute hepatitis in adult seeking medical care in Cairo. (*Bassily et al., 1986*).

The stratiges by which hepatits B can be diminished or eventually eliminated are, hygienic measurs (*London and Blumberg, 1985*), Passive immunization (*Flower and Tanner, 1984*) and active immunization (*Krugman, 1992*).

As there is not yet available antiviral agent successful in eliminating HBV whether it exists in a replicating or a nonreplicating form, successful immunization remains beneficial and effective procedure in preventing hepatitis B infection (*William and Balisteri, 1988*).

Clinical trials have shown the safety and efficacy of hepatits B vaccination. Yeast derived recombinant hepatitis B vaccine have replaced plasma derived vaccine (*Hollinger 1989*).

Approximately up to 95% achieve protective levels of antibody to hepatitis B surface antigen (≥ 10 IU/L) after three doses of yeast derived recombinant vaccine but it is well known that host and immunization factors can affect the response to hepatitis B vaccine (*Greenberg, 1993*).