INTRODUCTION

Jaundice is a common problem in apparently healthy newborns. It presents in the first week of life and persists beyond 14 days in 15- 40% of those who are breast- fed , The normal newborn produces 4-10 mg of bilirubin per kilogram per day, as opposed to the production of 3-4 mg/kg per day in the adult ***(Bhutani et al., 2004).***

Oxidative stress is a disturbance in the balance between the production of reactive oxygen species and antioxidant defenses in living organisms, In general it is an excess formation and/or insufficient removal of highly reactive molecules such as ROS ***(Valko et al., 2007).***

Antioxidants are compounds that dispose, scavenge and suppress the formation of free radicals or oppose their action. There are 2 main categories of antioxidant include**,(A)** antioxidant enzymes:, glutathione peroxidase (GPx) and Glucose 6 phoshate dehydrogenase (G6PD, these block the initiation of the free radical chain reactions**.(B)** The non enzymatic antioxidant components consists of molecules such as glutathione (GSH), vitamin E, ascorbic acid and beta carotene that react with activated oxygen species and thereby prevent the propagation of the free radical chain reaction ***(Nag et al., 2009).***

Indirect bilirubin is an important part of the scavenging barrier ,it can be said that this immature oxidant /antioxidant balance is influenced by the plasma indirect bilirubin concentration***.(Maisels and McDonagh 2008)***