

## Introduction

Cardiovascular compromise is common in sick term and preterm infants (*Gill and Weindling, 1993*). Impaired myocardial contractility and low cardiac output are common complication of such conditions such as respiratory distress syndrome and perinatal asphyxia (*Clark et al., 2004*). This reduced cardiovascular reserve may present clinically with hypotension which is associated with increased mortality and adverse neurological outcome (*Goldstein et al., 1995*). It has been suggested that myocardial dysfunction is due to ischaemia and/or necrosis (*Finley et al., 1979*). Previous studies in neonates have used creatine kinase isoforms as biochemical markers of specific hypoxic injury (*Primak et al., 1985*). However these markers have been largely discarded because gestation, sex, birth weight and mode of delivery all affect creatine Kinase activity (*Bhayana, 1997*).

Troponin is an inhibitory protein complex forming part of the contractile apparatus of all striated muscle, including the heart specific forms of the three troponin subunits T, C and I exist in different muscle types. Cardiac specific troponin T and I have become established as the best biochemical markers for myocardial necrosis (*Hetland and Dickstein, 1998*).

*Clark et al., (2000)* has previously reported that cardiac troponin T concentration in the cord blood of neonates is unaffected by gestation, birth weight and sex. Furthermore increases in cardiac troponin T in the cord blood were found to independently predict the development of respiratory distress syndrome.

In the study of *Clark et al., (2006)* higher level, of troponin T were found in respiratory distress syndrome infants and the elevation was early and sustained, suggesting significant myocardial damage of antenatal/ intrapartum origin giving rise to measurable dysfunction.