

Abstract

Low birth weight infants (LBWI) are defined as newborn with birth weight less than 2500g, including preterm infants and small for date infants. Preterm infants are those with gestational age less than 37 weeks, whereas small for date infants are born with birth weight less than the 10th percentile of the normal value, or less than the mean minus 2 standard deviations.

It is well known that the causes of LBWI are associated with maternal age, nutritional status, social economical factors, drug addiction, alcoholism, educational level, marital status, times of gestation and partum, irregular or without prenatal care, heavy physical labor work and diseases during pregnancy. It is also closely related to placental and fetal factors.

LBWI have high perinatal morbidity and mortality. They are associated with different degrees of handicap in physical and mental development, learning, awareness and accommodation. They are more prone to develop chronic diseases in adulthood as compared to infants with normal birth weight. Due to progressive development in medical technology, the survival rate of LBWI is increasing. Being born with suboptimal health, LBWI have great impact on the quality of population.

The problem of population quality and social burden caused by LBWI has aroused international attention in recent decades. There are different policies and interventions in different regions and countries according to their situations. The experience of interventions has been summarized in this paper, hoping to provide relevant information for the interested researchers and policy makers.

Besides there is an increasing trend in the incidence of LBWI in Macau recently. A case- control retrospective study was conducted in this paper through file revision. There were total 252 mothers and their 267 newborns being born in Central Hospital

of Conde de São Januário between 1st July 2006 and 30th June 2007 being investigated. Among them there were 151 LBWI and 116 normal birth weight infants. After analyzing the risk factors of LBWI by non-conditional logistic regression, followed by forward method of regression study, it showed that gestational age, maternal body weight, less prenatal care visits, oligohydramnios and intrauterine growth retardation were the maternal factors affecting the occurrence of LBWI. The smaller the gestational age is, the higher the risk of LBWI is. While the maternal body weight increases, the risk of LBWI decreases. The less the prenatal care visits are, the higher the risk of LBWI is. Oligohydramnios and intrauterine growth retardation being found prenatally increase the risk of LBWI.

Therefore, the attention of the government and society on the prevention of LBWI, proper education, prenatal care, prevention and treatment of preterm labor, nutritional enrichment and treatment of the complications and diseases during pregnancy play an important role in the prevention of LWBI.

Key Words: Low birth weight infants, risk factors, intervention