INTRODUCTION

Down syndrome was first identified in 1860 by Dr /Landon Down, who noticed a number of people in institutions, had similar physical characteristics. Down syndrome is a genetic condition. As the word syndrome implies, it is a collection of common characteristics that is evident not only physically, but also by a degree of learning disability. Down syndrome is caused by the presence of an extra chromosome 21, hence the classification trisomy 21.

Chromosomes are in simple terms the 'building blocks' that give us our individual characteristics, for example, blue eyes, blonde hair etc. Similarly, people with Down syndrome, who share this extra chromosome, also share common physical features ***(Scout Information Centre, 2005).***

Down syndrome (DS) is often accompanied by congenital heart and gastrointestinal disease, almost always manifesting in early infancy and often necessitating surgery, in addition, infants with DS run increased risks of medical conditions and problems like celiac disease, feeding difficulties, severe constipation, and seizures. During the past 2 to 3 decades, the prevalence and clinical management of these disorders and problems have been well established ***(Paul and Trotsenburg et al., 2006).***

Between 40 and 60% of babies with Down's syndrome have congenital heart defects. Of these 30 - 40% are complete atrioventricular septal defects (AVSD), most AVSD can be successfully treated if the diagnosis is made early and the baby referred for full corrective surgery before irreversible pulmonary vascular disease (PVD) is established, other lesions can usually be approached with less surgical urgency, there must be a high level of clinical suspicion of congenital heart disease (CHD) for all infants with the syndrome. Despite overall awareness of the risk of serious CHD in children with Down's syndrome some with important and sometimes severe CHD continue to present too late for the best chance of an optimum cardiac outcome ***(Archer et al., 2007).***

Congenital heart disease is a major cause of morbidity and mortality in children with Down's syndrome (trisomy 21). Two dimensional or Doppler echocardiography is regarded as the reference standard for diagnosing congenital heart disease. The American Academy of Pediatrics (AAP) recommends that all infants with Down syndrome have formal cardiac assessment including echocardiography in the newborn period ***(American academy of pediatrics, 2001).***

Achieving an early definitive diagnosis of haemodynamically significant cardiac anomalies may allow clinicians to prevent adverse outcomes such as heart failure. Detecting defects of the atrioventricular canal or ventricular septum in the infancy may also allow surgical

management to be planned before the onset of irreversible pulmonary hypertension which compromises the chances of successful corrective surgery ***(Suzuki 2000)***.

In the longer term, delaying the diagnosis of congenital heart disease until heart failure or pulmonary vascular disease is established may adversely affect growth and neurodevelopment with consequences for longer term cognitive, behavioral, and educational performance ***(American academy of pediatrics, 2001)and (Suzuki et al., 2000).***

Thanks to decades of research efforts, we know a great deal more about the various developmental difficulties met with by people with DS and the anomalies and pathological susceptibilities of various sorts with which they usually present. This knowledge is being translated into therapeutic and rehabilitation strategies intended to eliminate a number of these difficulties, reduce the others, and induce major improvements regarding health matters, physical, cognitive, educability, and inclusive schooling ***(Rondal et al., 2004).***