Introduction and Aim of the Work

Infants and children with congenital heart disease whether cyanotic or acyanotic are susceptible to the effect of hypoxia and diminshed tissue supply of oxygen (Gidding and Stockman 1988).

Erythropoietin is a hormone mainly produced by the kidney, whose secretion is largely affected by renal oxygen supply.

Erythropoietin is the most important hormonal factor regulating erythropoiesis (Jacobsen et al., 1957). Beyond its promoting effect on erythropoiesis, this hormone raises blood pressure through an increase in peripheral resistance mediated by increases in red blood cell mass and blood viscosity as well as by systemic and renal vasoconstriction (Volpe et al., 1994).

Plasma erythropoietin concentration are increased when oxygen consumption exceed the supply as in congenital heart disease (Tyndall et al., 1987 & Gidding and Stockman 1988).

To evaluate a possible other renal contribution to hypoxia plasma renin activity and aldosterone concentration will be also studied (Gomez et al., 1989).

Aim of the work :

The aim of this study is to evaluate erythropoietin, plasma renin activity and aldosterone levels in children with congenital heart disease whether cyanotic or acyanotic.