

## SUMMARY

Nitric oxide is now considered one of most recent advances in medical research studies, proposing it to be a highly significant biologic, immunologic and vascular mediator, modulating many physiological and pathological states.

Many studies have suggested nitric oxide to be the vascular mediator of the haemodynamic changes taking place in patients with portal hypertension and liver cirrhosis.

Nitric oxide overproduction in those patients was claimed by some authors to be a hepatic response to endotoxaemia of liver cirrhosis.

This study is a trial to detect and measure nitric oxide and endotoxin and their interrelation in patients with liver cirrhosis.

Thirty children patients with liver cirrhosis were studied, classified into three groups (according to modified Child's classification) compared with a healthy control group.

Nitric oxide levels were found to be significantly elevated in group B and group C of liver cirrhosis and in portal hypertension. There is also a significant variation between NO

levels in the three groups of cirrhosis indicating that NO production is augmented as the severity advances in patients with liver cirrhosis.

The same was found for endotoxin levels, which proved to be elevated also in groups B and C of cirrhosis, compared with the healthy control group. There is also a significant variation between endotoxin levels in the three groups of cirrhosis indicating that endotoxaemia progressively increased in relation to the severity of liver dysfunction.

A correlation between nitric oxide and endotoxins levels was found in those patients indicating that nitric oxide production is a hepatic response to endotoxaemia of liver cirrhosis.