**CARVEDILOL VS PROPRANOLOL IN TREATMENT OF PORTAL HYPERTENSION IN CIRRHOTIC PATIENTS WITH OESOPHAGEAL VARICES**

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Background:

Portal hypertension occurs in most patient with liver cirrhosis. Carvedilol a non-selective beta-blocker with intrinsic alpha-1 blocker activity has a greater reduction of portal pressure in patients with portal hypertension than Propranolol. In almost 90% of patients with cirrhosis oesophageal varices can be found and about 30% of that varices are at risk of bleeding. The estimated death rate for first episode of variceal haemorrhage is 30-50%.

Purpose:

to compare the effects of Carvedilol and Propranolol on systemic and splanchnic haemodynamic.

Methods:

Different trials comparing Carvedilol with Propranolol were done in the treatment of portal hypertension in cirrhotic patients with oesophageal varices complicated or not by bleeding. The main outcome measure was the hemodynamic response to treatment.

Results:

According to: Medica Sur Clinic and Foundation, Mexico City: 4 randomised trails and 153 patients were included; 79 patients were given Carvedilol (6.24-50 mg/d) and 74 patients were given Propranolol (10-320 mg/d). The pressure gradient in hepatic vein reduced more with Carvedilol than with Propranolol (MD -2.21;95% Cl: -2.83 to -1.60, l(2) = 0%, p < 0.00001). Carvedilol shows more effect compare to Propranolol for decreasing hepatic venous pressure gradient by equal or greater than 20 % from the baseline value.

According to Hepatic Hemodynamic (Madrid, Spain): 35 patients with cirrhosis had their gradient hepatic venous pressure measured prior to and after administration of Carvedilol (n=14), Propranolol (n=14), and placebo (n=7). Carvedilol exhibit a great reduction of hepatic venous pressure gradient, from (19.5+/-1 .3 to15.4 +/-1 mm hg (p < 0.0001). This hepatic venous pressure gradient reduction was higher than after Propranolol (-20.4 +/- 2 vs 12.7 +/- 2 vs. - 2%, p < 0.05). In addition, the effects of Carvedilol on hepatic venous pressure gradient was reduced greater than > 20% of the base value obtained or to ≤ 12 mm hg in lots of patients (64 % versus 14 %, p < 0.05).

Lastly, seven trails that focused at hemodynamic results comparing Carvedilol with Propranolol, shows that Carvedilol is associated with significant reduction of hepatic venous pressure gradient in no more than 6 months (mean difference -8.49,95 % Cl -12.36 to -4.63).

Conclusion:

The portal hypotensive effect of Carvedilol is greater than for Propranolol in patients with cirrhosis, this propose more therapeutic potential of Carvedilol.