Further Evidence of Favorable Effects of Gemfibrozil on the Lipid Profile in Renal Allograft Recipients

E. Ercan Ok
S. Seyhun Kursat
M. Mete Alev
M. Mahmut Tobu
Y. Yaman Tokat
F. Fehmi Akcicek
C. Cüneyt Hoscoskum
A. Ah Basci

Departments of Nephrology and General Surgery, School of Medicine, Ege University, Bornova-Izmir, Turkiye

Dr. Ercan Ok, Nephrology Department, Ege University Hospital, Bornova-Izmir (Turkey)

control group. The same diet was maintained in all cases. The characteristics of the groups are shown in table 1.

At the start of the study period, all measured values were similar in the two groups (table 2). At the end of the study there were minor changes in the lipid levels of the control group. The GF group showed significant decreases in TG (38%), TC (13%) and LDL-C levels (9%), while HDL-C was increased (12%); the final values of the GF group were also significantly lower than those of the control group with the exception of HDL-C (55 ± 10 mg/dl, 1.42 ± 0.25 mmol/l vs. 50 ± 0.25 mmol/l). 

Dear Sir,

Disturbances of lipid metabolism are frequently observed in dialysis and renal transplant patients [1]. While hypertriglyceridemia is more often encountered in hemodialysis patients, hypercholesterolemia gains preponderance after renal transplantation. Besides drugs such as corticosteroids, cyclosporin, β-blockers and diuretics, diabetes mellitus, graft dysfunction and obesity may also contribute to hyperlipidemia.

The preferred modes of treating hyperlipidemia include decreasing or withdrawing the responsible drugs and making dietary changes, but frequently these measures do not suffice [2]. Of the lipid-lowering drugs, cholestyramine has been reported to influence the metabolism of cyclosporin [3], and lovastatine has been implicated in the causation of rhabdomyolysis in cardiac transplant recipients [4]. Gemfibrozil (GF) has been reported to be an efficient drug without any serious side effects [5].

We investigated the efficacy of GF in a prospective fashion in 14 renal allograft recipients. Of 238 renal allograft recipients, 25 cases were selected for the study according to the following criteria, after a 6-month, lipid-lowering diet: graft age > 9 months; stable creatinine value < 2 mg/dl (176.8 mmol/l); triglyceride (TG) > 200 mg/dl (2.26 mmol/l), and/or total cholesterol (TC) > 220 mg/dl (5.68 mmol/l). Of these, 14 patients who had hypertension...
and/or a family history of ischemic heart disease were given GF in two equal doses totalling 1,200 mg/day for 3 months; the remaining 11 constituted the

Table 1. The features of the treatment and the control groups

<table>
<thead>
<tr>
<th>Gemfibrozil Control group</th>
<th>(n = 14)</th>
<th>(n = 11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TG, mg/dl, 1.29 ± 0.38 mmol/l, n.s.; table 2)</td>
<td>150 mg/dl (1.69 mmol/l)</td>
<td>In 3 of 14 hyper-cholesterolemic patients, TC at the end of the treatment was below 200 mg/dl</td>
</tr>
</tbody>
</table>

There were no complications such as myalgia, no increases in ALT, AST, CPK and creatinine values in any of the patients. GF particularly reduces the TG level, diminishes VLDL synthesis, amplifies the activity of lipoprotein lipase, increases HDL-C by amplifying the synthesis of apo-AI and -AII, which are major HDL proteins [6]. In 9 of the 11 hypertriglyceridemic patients, the TG value decreased to below 150 mg/dl (1.69 mmol/l). In 3 of 14 hyper-cholesterolemic patients, TC at the end of the treatment was below 200 mg/dl.

* p < 0.05, ** p < 0.01, *** p < 0.0001, 0 vs. 3rd month.

References


Nephron 1996;73:491-492
Ök/Kursat/Alev/Tobu/Tokat/Akcicek/Hoskoskun/Basci