



The lipoproteins selections aphereses with LDL Lipopak 400

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1. Introduction and purpose

The lipid lowering is one of the main ways to achieve reduction of the atherosclerosis progress. In the rare patients with homozygous familial hypercholesterolemia low density lipoprotein cholesterol apheresis should be performed as these patients usually have extremely high low density lipoprotein cholesterol concentrations and these patients usually do not, or only insufficiently, respond to statin therapy.

2. Methods

The most frequently used mechanical methods of cholesterol removal from blood include the procedure of extracorporeal apheresis. The case of rare complicated homozygous hypercholesterolemia treated by selective adsorption of lipoproteins with LDL Lipopak 400. Procedures were performed using equipments Adasorb and Cobe Spectra. Sterile disposable components were manufactured by Medicap clinic GmbH, Ulrichstein, Germany. All treatments were performed using a peripheral venous vas-

cular approach. Blood was drawn via a 16-gauge needle at a flow rate 30–60 ml/min. Total cholesterol, low density lipoprotein cholesterol and other lipids were measured enzymatically using a commercially available kit.

3. Results

From 2010 January until 2011 December in total 19 sessions were performed on one patient 22 years old. Lipids levels before and after lipids apheresis were measured during each session throughout the study period. The mean reduction of low density lipoprotein cholesterol was 50, 7, 3–80.4% compared to baseline, total cholesterol – 49.1–77.1%, lipoprotein (a) – 50.2–81.3%, apolipoprotein B – 56.1–83.4%. Clinically, 100% of the sessions were completely uneventful.

4. Conclusions

Our results with LDL Lipopak 400 are very encouraging.