THERAPEUTIC CONTROL OF ATHEROGENOUS PRIMARY HYPERLIPIDEMIAS

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This report reexamines the objectives of medical treatment in primary (or idiopathic) hyperlipidemia. Secondary hyperlipidemias stemming from thyroid, cholestatic, diabetic, and renal etc. origins which require their own specific treatments have therefore been excluded from this discussion.

Therapeutic objectives must be precisely adjusted to the dangers incurred in each type, or more exactly, each class of primary hyperlipidemia; they must also take into account the place of these threats in the patient's own vital profile according to his age and sex. These dangers can be immediate as in the case of pancreatitis with massive hyperglyceridemia, or dangerously anticipated as, for example, in severely graded atherogenic hyperlipidemia. Conversely, they can be delayed to late term or even aleatory, particularly in females and when the grade of hyperlipidemia is minimal.

For this reason treatment of massive hyperglyceridemia, which is responsible for the often dramatic consequences of pancreatitis, must be differentiated from treatment of diverse atherogenic hyperlipidemias.

TREATMENT OF MASSIVE HYPERGLYCE RIDEMIAS

Treatment of massive hyperglyceridemia aims to avoid all risks of acute or relapsing subacute pancreatitis which can occur in all classes of massive hyperglyceridemia when, as we have previously demonstrated, triglyceride levels exceed 1000 mg/dl or more (1).
In all of these forms the essential part of treatment is dietetic and not drug therapy. These diets however which aim to correct this hyperglyceridemia are varied and can be completely different according to the type of hyperglyceridemia involved.

1. **Exogenous fat-dependent hyperglyceridemia**

   In exogenous type I fat-dependent hyperglyceridemia - which occasionally changes into type V - characterized by a positive decantation test at 4° and a heavy floating layer of chylomicrons alimentary restriction of long chain fatty-acid fats to no more than 5% of the total alimentary ration is an absolute necessity regardless of the difficult constraints imposed.

   Consequently, in order to avoid the risk of an important imbalance in alimentary ration favoring carbohydrates which in turn would convert this type I hyperglyceridemia to type IV or type V as is often the case, it is desirable to readjust fat intake owing to the use of medium chain glycerides. These should not, however, exceed approximately 20% of caloric intake since above this amount they may reinforce an excess charge of prebetalipoproteins.

   In most instances correction on a long term basis is only partial. Residual hyperglyceridemia remains after treatment. Triglyceride levels should subsequently be maintained below 1000 mg/dl. It is best to consider this disease as a hyperchylomiconemic (type I) form rather than a hyperlipomiconemic (type IV) form in order to avoid the probable, if not certain, atherogenic risk of the latter.

2. **Mixed massive fat and carbohydrate-dependant hyperglyceridemia (real type V)**

   Only a diet regimen based upon a double restriction of fats and carbohydrates can totally correct mixed massive fat and carbohydrate-dependant hyperglyceridemia. Such a correction, often dramatic and complete, can be only time limited because this regimen leads to inevitable progressive weight loss in these patients. While this reduction is certainly desirable when an overweight preexists it can become undesirable and critical with normal or thin subjects - which is often the case in real type V hyperglyceridemia - and can lead to excessive weight loss and fatigue.

   For long term treatment of these patients it is best to accept a partial dietary modification which preferentially limits long chain triglycerides and partially reduces carbohydrates so that a reasonable caloric ration is maintained