

10 40 20 80

Background:

High blood cholesterol is one of the major risk factors for heart disease. A risk factor is a condition that increases your chance of getting a disease. In fact, the higher your blood cholesterol level, the greater your risk for developing heart disease or having a heart attack.

Drug Description:

DISPITOR™ is a synthetic lipid-lowering agent containing Atorvastatin as an active ingredient. Atorvastatin is a member of the drug class known as statins, which are used primarily as a lipid-lowering agent and for prevention of events associated with cardiovascular disease. Like all statins, atorvastatin works by inhibiting HMG-CoA reductase, an enzyme found in liver tissue that plays a key role in production of cholesterol in the body.

Mechanism of Action:

DISPITOR™ selectively and competitively inhibits the hepatic enzyme HMG-CoA reductase. As HMG-CoA reductase is responsible for converting HMG-CoA to mevalonate in the cholesterol biosynthesis pathway, this results in a subsequent decrease in hepatic cholesterol levels. Decreased hepatic cholesterol levels stimulates upregulation of hepatic LDL-C receptors which increases hepatic uptake of LDL-C and reduces serum LDL-C concentrations.

Indication:

DISPITOR™ is indicated for the treatment of high cholesterol, and to lower the risk of stroke, heart attack, or other heart complications in people with type 2 diabetes, coronary heart disease, or other risk factors.

Dosage & Administration:

Usual Adult Dose for Prevention of Cardiovascular Disease:

The initial dosage of Atorvastatin recommended for this patient in the prevention of cardiovascular disease is 10 mg to 80 mg orally once a day.

Usual Adult Dose for Hyperlipidemia:

Initial dose: 10, 20 or 40 mg orally once a day. The 40 mg starting dose is recommended for patients who require a reduction in LDL-cholesterol of more than 45%. Dose adjustments should be made at intervals of 2 to 4 weeks.

Usual Pediatric Dose for Hypercholesterolemia:

10 to 17 years: 10 mg per day (max dose is 20 mg per day). Adjustments should be made at intervals of 4 weeks or more.

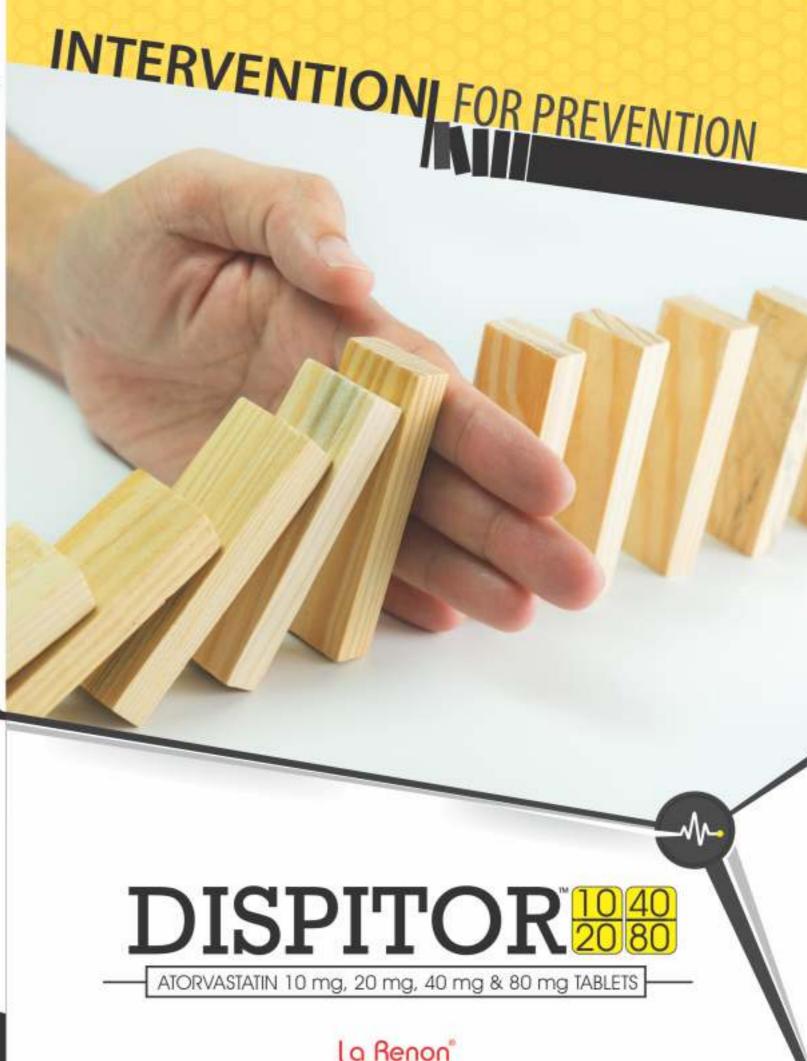
Presentation:

DISPITOR™- 10, 20, 40 and 80 mg is available as a strip of 10 tablets in ALU- PVDC Blister packing.

La Renon Healthcare Pvt. Ltd.

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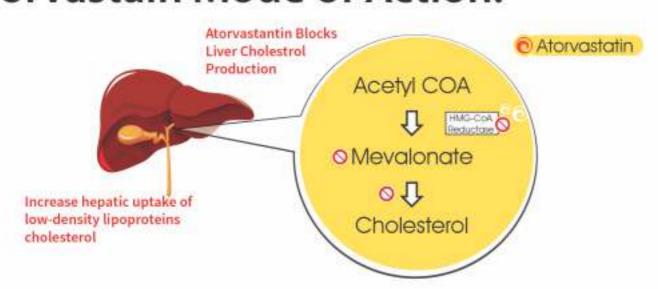
Introduction

- Cholesterol is a waxy substance that is made by the body and found in some animal-based foods. Blood cholesterol levels describe a group of fats also known as lipoproteins which includes HDL-C, or "good" cholesterol and LDL-C or "bad" cholesterol.
- Cholesterol is important to overall health, but when levels are too high, cholesterol can be harmful by contributing to narrowed or blocked arteries.

How Does Cholesterol Cause Heart Disease?

- When there is too much cholesterol (a fat-like substance) in your blood, it builds up in the walls of your arteries.
- Over time, this buildup causes "hardening of the arteries" so that arteries become narrowed and blood flow to the heart is slowed down or blocked.
- The blood carries oxygen to the heart, and if enough blood and oxygen cannot reach your heart, you may suffer chest pain. If the blood supply to a portion of the heart is completely cut off by a blockage, the result is a heart attack.
- High blood cholesterol itself does not cause symptoms, so many people are unaware that their cholesterol level is too high.
- It is important to find out what your cholesterol numbers are because lowering cholesterol levels that are too high lessens the risk for developing heart disease and reduces the chance of a heart attack or dying of heart disease, even if you already have it.
- Cholesterol lowering is important for everyone--younger, middle age, and older adults; women and men; and people with or without heart disease.

Atorvastain Mode of Action:



Clinical Evidence 1

Action of Atorvastatin in Combined Hyperlipidemia 1

Combined hyperlipidemia (CHL) is characterized by a concomitant elevation of plasma levels of triglyceride rich, Very low density lipoproteins (VLDLs) and cholesterol-rich, low density lipoproteins (LDLs).

A Study was done on eighteen patient for action of Atorvastatin. Plasma lipid and apolipoprotein levels before and after 6 weeks of atorvastatin treatment (10 mg/d) in CHL patients were observed.

Before Treatment 267 ± 35	After Treatment 184 ± 23	% Change -31 %
46 ± 15 175 ± 27	26±6 111±20	-43% -36 %

Conclusions:

The above table showed significant reduction in Total cholesterol, Triglycerides, VLDL cholesterol, LDL cholesterol levels.

Clinical Evidence 2

A Comparative effect of Atorvastatin with other statins in patients of hyperlipidemia²

The objective of the study was to evaluate the safety and efficacy of atorvastatin compared with simvastatin and pravastatin in patients of hyperlipidemia.

Materials and Methods:

This was a randomized, parallel group, open-label study conducted at KG hospital, Coimbatore, Tamilnadu, India. Twenty hyperlipidemia patients each taking atorvastatin 20 mg, pravastatin 20 mg and simvastatin 20 mg tablets were selected for the study after clinical and baseline investigations. The patients were reviewed after 3rd and 5th month of statin therapy for lipid profile. The liver enzyme levels (SGOT, SGPT, ALP), albumin, bilirubin, protein and biochemical infraction parameters (Creatine Kinase, Creatine Kinase - Myocardial Band) after 5th month of treatment with statins were also reviewed.

Results:

The results showed that atorvastatin significantly reduced the lipid levels (LDL-C, TC, TG, VLDL) when compared to simvastatin and pravastatin after 3rd and 5th month of treatment. Atorvastatin increased the HDL-C levels significantly when compared to simvastatin and pravastatin after 5 months of treatment. Atorvastatin also significantly reduced the CK levels when compared to pravastatin but no increase in liver enzyme levels was observed.

Conclusion:

The study showed that atorvastatin is more effective when compared to simvastatin and pravastatin in patients with hyperlipidemia.



References:

Arterioscler Thromb Vasc Biol. 2000;20:189-197
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