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Editorial

Cholecystokinin and its Receptor are a Promising Therapeutic Target for Cholesterol Gallstones Disease

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Cholesterol gallstone disease does not have an effective pharmacological treatment; it is treated by invasive surgical methods [1]. The pathophysiology of this disease is complex and polygenic and different lines of research have focused on explore a future therapeutic target [2]; among these investigations are those focused on the motility of the gallbladder, where cholecystokinin plays a primary role. This hormone is involved in the contraction of gallbladder and relaxation of the sphincter of Oddi, its main ligand is the cholecystokinin A receptor or CCK-1R [3]. Different scientists suggest that the increase of expression of CCK-1R may favor gallbladder emptying function, improve biliary cholesterol metabolism and decrease intestinal cholesterol absorption, these effects are very important in the treatment and prevention of cholesterol gallstones. Researchers have also reported some futures CCK-1R agonists that may increase the biliary motility and inhibit the formation of cholesterol lithiasis [4].

It is very important to consider that adequate bile motility allows good storage and emptying of bile. This liquid contains many mixed micelles formed by phospholipids and bile salts, which in an adequate mobility environment, can emulsify excess cholesterol in the gallbladder walls or in gallstones already formed, contributing to the decrease in their size and its subsequent dissolution; adequate bile motility would decrease the chances of biliary obstruction, so this is a very important topic to look for a new drug that treats cholesterol stones.

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