

Review of: "[Review Article] Pitavastatin: A Comprehensive Overview of its Mechanisms, Pharmacokinetics, Pharmacodynamics, and Adverse Effects"

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Potential competing interests: No potential competing interests to declare.

In the present review, the authors described the benefits of pitavastatin, an HMG-CoA reductase inhibitor, on dyslipidemic and diabetic patients.

General comment:

It is my understanding that the authors wanted to emphasize the advantage of using pitavastatin and no other statins since it has no effect on glucose levels and significantly reduces triglyceride levels with an increase in HDL cholesterol. However, the authors did not provide data that supported this evidence. The manuscript will improve considerably with tables on clinical data and pharmacokinetic characteristics of the drug.

Additional comments:

1. Line 3, b-hydroxy should be β -hydroxy.
2. The authors indicated that "pitavastatin exhibits a more robust effect on cholesterol levels due to its new, totally synthetic nature." Why? Simply having a synthetic nature does not imply a more potent action. This sentence should be rephrased.
3. The first sentence in paragraph 3 (pharmacodynamics of pitavastatin) describes some pharmacokinetic properties. It should be moved to paragraph 4.
4. The sentence "Data from both inside and outside of living organisms;" should be rephrased.
5. The authors very often made comparisons of pitavastatin with very old drugs of this class, such as pravastatin and simvastatin. The authors should compare pitavastatin with the most potent statins, rosuvastatin and atorvastatin. Many changes are required throughout the manuscript.
6. Figure 2 is not the mechanism of action of pitavastatin. It is more related to its side effects. It is also not clear if the drug has a protective effect on insulin resistance and secretion. This figure must be improved.
7. What is PTVS?
8. The authors should indicate the drug transporters involved in pitavastatin disposition.
9. Please add the reference for this sentence "Pitavastatin is a new type of statin that causes plaque regression."
10. These two sentences are not clear and must be rephrased: "Pitavastatin would be a great imaging agent for hOATP, which is why we looked at making this agent synthetic [28]. Pitavastatin has also been shown to have lipid-lowering

effects in many research studies [19].”