

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

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The manuscript *Pitavastatin: A Comprehensive Overview of its Mechanisms, Pharmacokinetics, Pharmacodynamics, and Adverse Effects* by Priyanka Chaurasiya et al. focuses on the characteristics of pitavastatin. The manuscript is interesting, but it needs to be improved before publishing. There are many typos and discrepancies in the preparation of the manuscript.

Above all, it must be improved in content. Below are indications on the changes to be made.

First, it is necessary to strongly motivate the validity and innovativeness of the proposed work. First, refer to other similar studies (add references) and amplify the originality of this review study.

The work can be accepted because it is in line with the requirements of the journal, but it is necessary to keep in mind substantial changes and minor corrections without which the manuscript is not to be considered.

Below, I report some small typing and conceptual errors and some important changes that must be made before accepting the work.

- Page 1, first line of Abstract: Explain that pitavastatin is a statin.
- Be careful not to change the subject of the concept you are discussing. Don't shift your focus from pitavastatin to statins in general between one sentence and the next. Maintain a continuity of subject.
- Standardize the way in which the names of statins are written, whether with a capital initial letter or not. Maintain the choice throughout the text.
- Page 2, keywords: Add *statins*.
- Page 2, wrong: As "statins_". Write as "statins". This typo is often repeated; be careful and change it everywhere in the text.
- Page 2, wrong: B-hydroxy. Use b-hydroxy. Control everywhere.
- 3-hydroxy-3-methylglutaryl-coenzyme A (HMG CoA)
- You must always explain the meaning of an acronym the first time you mention it, but then, after the first time, always use the acronym and not the full name. Be careful because the full name is often repeated in the text, and sometimes,

however, the full meaning of the acronym has not been written. EX HDL, LDL, LDL-C, DDIs, PTVs, HMG-CoA, BCRP, hOATP, ADRs, DDIs6, RCT

- Pagina 4, do not use & but *and*
- Page 2, the sentence: *Compared to other medications in its class, pitavastatin exhibits a more robust effect on cholesterol levels due to its new, totally synthetic nature*[8] has to be moved to the beginning of the paragraph.
- Introduction: Improve the introduction, state the purpose of the work, emphasize the purpose of the work.
- Chemical structure: Add more information about the compound, highlight and emphasize the differences with statins.
- Page 3. The sentence: *That ought to contribute to higher rates of LDL-C target attainment by lowering the risk of undertreatment, minimizing adverse events, and lowering the risk of DDIs in patients who need polypharmacy*. [13]. is not clear. Pay attention to the double full stop.
- Page 3. Are these sentences useful here? *Pitavastatin is a widely accepted and efficacious therapy for individuals with combined dyslipidemia as well as hypercholesterolemia, particularly for patients with low HDL-C. That ought to contribute to higher rates of LDL-C target attainment by lowering the risk of undertreatment, minimizing adverse events, and lowering the risk of DDIs in patients who need polypharmacy*. [13]. *Statins often bind to HMG-CoA reductase with several thousand times greater affinity than HMG-CoA, and their structures are comparable to that of HMG-CoA*[5]
- Page 3. The sentence is not useful here. *Another new HMG-CoA reductase inhibitor that has demonstrated significant effects on lowering plasma total cholesterol and triglycerides is pitavastatin* [14] .
- Page 3, Figure 1. The structure does not contain the ion calcium. Pay attention.
- Page 3. Correct as follows: Pitavastatin was mostly absorbed in the small intestine rather than the colon, showing a bioavailability of (51%), and Tmax 1 hour. When pitavastatin is taken after a fatty meal, the Cmax drops is by 43% [4]
- Page 4, control these sentences: *By suppressing the synthesis of mevalonate from HMG-CoA and lowering intracellular cholesterol, this raises the activity of the LDL receptor and promotes adoption of non-HDL particles from the systemic circulation* [16] . *Data from both inside and outside of living organisms; experiments show that statins limit the formation of*
- *products from the mevalonate pathway & raise cholesterol accumulation, which impairs the function of β -cells and reduces their sensitivity to insulin and release of it* [17] .
- Put *in vitro* and *in vivo* in italics.
- Page 4. Figure 2. Insert the reference of Figure 2 in the text. The figure is too small. The arrows are too small.
- Page 5. Other effects. Emphasize the differences between statins and the compound being reviewed in order to promote it.
- Page 5. The meaning of the following sentences seems to be in contrast. Check and explain. *The Cmax is decreased when pitavastatin is administered with a high-fat meal, but the AUC (area under the plasma concentration-time curve) remains unaffected* [19] . *Pitavastatin is thought to have a lower effect on LDL-C because of its longer half-life when compared to other statins* [15] . *Food has no clinically significant effects on pitavastatin's pharmacokinetic profile* [19]
- Page 6. Move the sentence: *A more often prescribed drug for the treatment of dyslipidemia is pitavastatin* [26] .
- Page 6. Explain: *A more often prescribed drug for the treatment of dyslipidemia is pitavastatin*[26]
- Page 6. Rephrase: Pitavastatin is a new and strong inhibitor of HMG-coenzyme A reductase, and it has already been

shown that OATP-1B1 plays a major role in its uptake by human hepatocytes.

- Page 6. Rephrase: *Polypharmacy, ADRs, and statin-drug interactions: terms such as "statin" (along with others, such as "HMG CoA reductase inhibitor"), terms concerning polypharmacy (such as "polypharmacy" or "interaction" or "concomitant" or "co[1]morbidity"), and words concerning ADRs (such as "adverse drug reaction" or "adverse event" or "side-effect" OR "myopathy" and others were searched). In a recent study, 543 hospitalized patients over 75 years old were given an average of 7.4 drugs; the literature said that "polypharmacy in old age is the rule rather than the exception."*
- Page 7. Which *medications*?
- Page 7. Which *extracts*?
- Page 7. Only *Japanese* data? Please refer to other nations.
- Page 7. Rephrase: *Even with the broad availability of efficacious statins, an intolerably high percentage of patients (47-84%) do not achieve their intended LDL-C level in a medical setting [46].*
- Page 7. Discussion. Please write the conclusions correctly. They must be a summary of what was said before, do not add other information with bibliographical references.
- Page 7. Discussion. Pay attention to the first line.
- Page 7. This sentence is not useful here. *The safety of 19,925 patients using pitavastatin in clinical practice was examined in the post-marketing LIVES trial [25].*
- Page 8. Conclusions. Improve the final consideration. This sentence is not useful: *Pitavastatin has good tolerability [17]*. The references are not useful here.
- Page 9-12. References. *Please correct all the references. What is the meaning of the letter a, b...?*
- Page 9. Correct Ref 11.
- Page 9. Correct Ref 4.
- Page 11. Correct Ref 37.