Review of: "[Perspective] Hypochlorous Acid (HOCL): A Multifaceted and Promising Therapeutic Perspective Against Human Immunodeficiency Virus (HIV)"

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Potential competing interests: No potential competing interests to declare.

The review is written well but robustly needs to address the below comments

1. Hypochlorous acid is a surface-active detergent. The authors suggest that HOCl, being uncharged, often traverses the plasma membrane. But it is a weak acid (unstable) and often used as a salt, NaOCl/$CaOCl_2$, which ionises into charged species like hypochlorite (ClO^-); how charged species pass the membrane needs justification.
2. Hypochlorous acid is unstable and shows its effect at specific pH. It should be made in a buffer to maintain its stability. Besides, using high doses of HOCl (75 mg/Kg body weight) for a week seems to be dangerous and warrants a quick inflammatory response. How this is possible, and is there any literature that supports that? The authors need to support the argument in the text.
3. Hypochlorous acid leads to collateral damage where it is generated. This supposition is still weak because the plasma medium is totally different during inflammation, such as the acute phase response, and our body neutralizes its effect through different endogenous antioxidants present, nullifying its effects. How it then behaves as an oxidant needs justification.
4. Hypochlorous acid, at a high concentration (75 mg/Kg), is disastrous to the site where it is injected. It can damage the immediate tissues and may activate the immune system, leading to a cytokine storm. It seems to be a highly exacerbated argument with no explanation?
5. This regimen concentration (with its toxicity vs. efficacy) leads to more adverse effects than potential therapeutic benefits. How then can HOCl act as a therapeutic medicine?
6. Finally, HIV infects the $CD4^+$ cells (by generating new progeny virions). How HOCl can enter the cell and kill the virus seems to be perplexed. If the oxidant can enter T lymphocytes or other $CD4^+$ cells, then other adjacent cells are legitimate targets, further exacerbating its deleterious effects. If HOCl can treat HIV infection, then other weak acids can also accomplish this task. The authors should make a rationale argument in support of their position to justify this without baffling the scientific committee about HOCl as a therapeutic agent for possible treatment for HIV.