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Response to Comment on Isolation and Identification of Compounds from *Penthorum chinense* Pursh with Antioxidant and Antihepatocarcinoma Properties: Bioactivities of Pinocembrine Group and Its Derivatives Are Noteworthy

We greatly appreciate your interest in our paper. Your comment is a great inspiration to our research in the future.

In addition to your examples, which clearly illustrated the significant neuroprotective effects of pinocembrin, several studies have shown that pinocembrin has vascular- and neuron-protective effects on permanent focal cerebral ischemia by lowering the expressions of tumor necrosis factor-α, interleukin-1β, intercellular adhesion molecule-1, vascular cell adhesion molecule-1, inducible NO synthase, and aquaporin-4 and bringing down the expression of MMPs.[1,2] In our research, we mainly focused on the antioxidant and antihepatocarcinoma activities of pinocembrine group and its derivatives;[3] the neuroprotective effects were neglected. The comments of Dr. Kapoor have made up for this shortcoming.

Besides the neuroprotective efficacy, pinocembrin could exert protective effects on endotoxin-induced acute lung injury in mice by attenuating LPS-induced lung injury through suppression of IκBα, JNK, and p38MAPK activation.[4] This implies that pinocembrin may have a potential liver protection effect, which has a close relationship with the antihepatocarcinoma activity that pinocembrin-7-*O*-[3-*O*-galloyl-4″,6″-hexahydroxydiphenoyl]-β-glucose (PGHG) and thonningianins A (Th A) showed.[3] Research on the antihepatocarcinoma activity of pinocembrin will be an interesting and worthwhile work in the future.

Both PGHG and Th A have a class of pinocembrin groups; the former is a pinocembrin group, and the latter is a pinocembrine dihydrochalcone group. The pinocembrin group and its derivatives exert these neuroprotective effects and other activities. Combined with your point of view, we have reason to speculate that PGHG and Th A may also have some anti-inflammatory and neuron-protective roles, indicating the need for further studies in this regard.

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Notes

The authors declare no competing financial interest.

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