Effect of Pentagamavunon-0 on Sgpt Level and Liver Histophatological Findings

Novida Ariani, Sri Hastati[1]

[1]Biochemistry department, Medical Faculty, Mulawarman University

ABSTRACT

Pentagamavunon-0 (PGV-0) is one of curcumin derivate. PGV-0 is a cycloxygenase inhibitor and it can inhibit prostaglandin synthesize. Due to its capability, PGV-0 can act as antifertility agent and can be improved as a new contraceptive product. Therefore, the safety of the agent must be explored, especially in vital organ such as liver. This study is experimental study with post test control randomized group design. Fifteen *Rattus norvegicus* Wistar strain aged 28 days distributed into five groups: control group, Indomethasin ED_{50}, PGV-0 ED_{50}, PGV-0 two times ED_{50} and PGV-0 four times ED_{50}. *Rattus norvegicus* were examined SGPT level and histophatological findings with Hematoxylin-Eosin stain on aged 31 days. SGPT level was increased in groups given by curcumin derivate. Curcumin derivate also increased inflammation cells, degenerative and necrotic hepatocytes. Inflammation cells were including PMN and MN cells. Most degenerative hepatocytes were cloudy swelling type. Picnotic, karyorexis and karyolitic were seen in necrotic cells. Inflammation cells, degeneration and necrotic hepatocytes increased when curcumin dosage was increased. Even though there were many pathological findings, but they were very minimal. There's no cholestatic, steatotic, vascular change, fibrotic and anaplastic in all groups. Even though curcumin is hepatoprotective agent, but PGV-0 is hepatotoxic agent. Therefore, PGV-0 is less safe if it is processed become antifertility agent or new contraception products.

Keyword: Curcumin derivate, degeneration, inflammation cells, necrotic pentagamavunon-0, SGPT.

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