Anti-Hepatitis B Virus Activity of New 1,2,4-Triazol-2-yl- and 1,3,4-Oxadiazol-2-yl-2-pyridinone Derivatives


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A number of 1,3,4-oxadiazole, 3–9, and 1,2,4-triazole derivatives, 13–15, were synthesized starting from the acid hydrazide 1. The 1,3,4-thiadiazole derivative 12 was prepared from the substituted phenylthiosemicarbazide derivative 11 by treatment with sulfuric acid. The aryl hydrazone derivatives 10a–c were synthesized by reaction of the hydrazide 1 with the corresponding ketones. The thioalkyl derivatives 16a–e were prepared by alkylation of the thiol derivatives 3 and 13 with different alkylating agents. The newly synthesized compounds were tested for their anti-HBV activity and some of these compounds showed high antiviral activity.

Key words: 1,2,4-Triazoles, 1,3,4-Oxadiazoles, Anti-Hepatitis B Virus