A number of new 5-[(naphthalen-5-yloxy)methyl]-1,3,4-oxadiazole derivatives, 2–5 and 8–11, were synthesized. The 2-{5-[(naphthalen-5-yloxy)methyl]-1,3,4-oxadiazol-2-ylthio}acetohydrazones 6a and 6b were synthesized by the reaction of the hydrazide 4 with the corresponding monosaccharides. Cyclization of the sugar hydrazones 6a and 6b with acetic anhydride afforded the substituted oxadiazoline derivatives 7a and 7b. The synthesized compounds were evaluated for their antiviral activity against the human immunodeficiency virus (HIV-1) and some of these compounds showed moderate to high antiviral activity.

Key words: Sugar Hydrazones, 1,3,4-Oxadiazoles, Acyclic Nucleosides, Antiviral Activity