

P-090: ISOLATION AND IDENTIFICATION OF A NOVEL SILDENAFIL ANALOGUE ADULTERATED IN HERBAL SUPPLEMENTS

Mei-Chih Lin, Yoe-Ray Ku, Yi-Chu Liu, Jer-Huei Lin*

Bureau of Food and Drug Analysis, Department of Health, Executive Yuan, 161-2, Kuen Yang Street, Nankang, Taipei 115, Taiwan

The adulteration of synthetic chemical drugs in dietary supplements is banned by the health authorities in Taiwan for public safety reasons. A putative sildenafil analogue was detected from dietary supplements which claim for energy enforcement by using TLC and UV method. The UV spectrum of suspected compound shows very similar pattern to that of acetildenafil (sildenafil analogue). In order to identify this compound, separation and purification were carried out as well as structure determination conducted by various NMR techniques, mass spectrum and IR. This newly detected and identified compound, 5-[5-acetyl-2-ethoxy-phenyl]-1-methyl-3-propyl-1,6-dihydro-pyrazolo[4,3-d] pyrimidin-7-one (molecular weight 354), was not previously reported in the literature and was not approved as a medicine. Although no related reports on this compound were published in the literature, the result of this report strongly suggests that it was illegally adulterated into the dietary supplements.