ABSTRACT

VALIDATION OF UV SPECTROPHOTOMETRIC METHOD FOR DETERMINATION OF COLCHICINE FROM *Gloriosa superba* IN SYRUP

Elinda Elvarina

Method validation is important to be done because it is related to the reproducibility of the method which is developed so provide results that are not meaningful despite of differences in personnel, instruments, procedures and workplaces. An alternative method for the assay is the UV Spectrophotometric method. The requirements of determination of UV Spectrophotometry physically have to be in a clear solution and chemically must have conjugated double bonds, aromatic core, chromophore and auxochrome group, which is contained in colchicine. Presence of colchicine in *Gloriosa superba* is a natural resources need to be explored, through processing into syrup preparations, the dose of colchicine in syrup need to be established as a quality control. The determination of colchicine is included the first category in validation. So that, the parameter selectivity, linearity, precision, accuracy should be validated. The optimum condition was reached in wavelength 350,2 nm. In that condition, the equation of regression was $Y = 0{,}0371x + 9{,}1907.10^{-4}$, r = 0,9994 > r table is 0,684 for n=13, (p=0,000; p<0,01) Vxo = $7{,}1378.10^{-3}$ % (Vxo ≤ 5%), while the precision gave coefficient of variation 0,19% and gave average recovery of 89,56% ± 1,80%. The determination of colchicine in the freeze dried was carried out in six replications and the determination of colchicine in syrup was carried out in seven replications. The result showed that the concentration of colchicine in freeze dried was 2,02% ± 1,74% and weight of colchicine in syrup was 0,507 miligrams ± 1,88% per 10,0 mililiters.

Keywords: Validation of UV Spectrofotometric method, colchicine assay, *Gloriosa superba*, syrup.