

Abstract

Inspiration behind this work is the significance of 'Hair' as an evidence in modern day toxicology. The objective of the present work is to test some commonly used benzodiazepine from human hair sample, in different portion of a hair such as "Hair Root" and "Hair shaft" and the comparison of concentrations recover from these different portions. In addition to this, samples to conduct this study were obtained from volunteers who were diseased (i.e. Hypertensive and Diabetic) at the same time, to find out the proportion with which these drugs are distributed among these diseased patient's hair. For the analysis I use GC/MS instrument, the most sensitive instrument to find even traces of any compound. After completion of practical work I came up with results that "Hair Root" and "Hair shaft" contain different proportions of benzodiazepines distributed among themselves, and the patients suffering from Diabetes mellitus were found to contain greater proportions of drug than Hypertensive patients. Drug concentration difference among 'Hair Root' and 'Hair Shaft' is greater for Hypertensive patients than for diabetic patients. Patients taking antihypertensive medication were found to contain small drug fractions from their hair specimen.