RP-HPLC Method Conclusion:

Although various RP-HPLC methods have been reported for the simultaneous estimation of antihypertensive and antidiabetic tablet dosage form in ternary formulation containing drugs in combination of HCT, RPL and TEL, MET, PIO and GLB, HCT, AML and LOS and LOS, ATE and HCT, by RP-HPLC method for simultaneous estimation these tablet dosage using internal standard has not been reported.

A simple, rapid and reliable RP-HPLC method has been established for simultaneous determination of combination drugs, namely; 1) HCT, RPL and TEL; 2) MET, PIO and GLB; 3) HCT, AML and LOS; and 4) LOS, ATE and HCT, either alone or in their ternary formulations.

The best resolution and peak shape, without excessive tailing, were obtained by use of the Phenomenax C18 column for simultaneous determination of HCT, RAM, TEL with IS.

The best resolution and peak shape, without excessive tailing, were obtained by use of the Phenomenax C18 column for simultaneous determination of MET, PIO and GLB with IS.

The best resolution and peak shape, without excessive tailing, were obtained by use of the Phenomenax CN column for simultaneous determination of HCT, AML and LOS with IS.

The best resolution and peak shape, without excessive tailing, were obtained by use of the Phenomenax CN column for simultaneous determination of LOS, ATE and HCT with IS.

The method has several advantages, including rapid analysis, a simple mobile phase, simple sample preparation and improved sensitivity and relatively short time. It is
suitable for analysis of these antihypertensive and antidiabetic agents in their ternary formulations in a single isocratic run, in contrast with previous methods. This makes the method suitable for routine analysis in quality-control laboratories.

**UPLCMS Method Conclusion:**

Although various HPLC-MS/MS, HPLCMS methods have been reported for the simultaneous estimation of antihypertensive and antidiabetic tablet dosage form in ternary formulation and binary containing drugs in combination namely; 1) HCT, RAM and TEL; 2) HCT, AML and LOS; 3) LOS, ATE and HCT; 4) MET and VOG; 5) MET, GLM and PIO; and 6) MET, PIO and GLB. UPLCMS method for simultaneous estimation these tablet dosage using internal standard has not been reported.

A simple, rapid and reliable UPLCMS method has been established for simultaneous determination of 1) HCT, RAM and TEL; 2) HCT, AML and LOS; 3) LOS, ATE and HCT; 4) MET and VOG; 5) MET, GLM and PIO; and 6) MET, PIO and GLB, either alone or in their ternary formulations.

The best resolution and peak shape, without excessive tailing, were obtained by use of the BEH C18 column (50 mm column length) for simultaneous determination of HCT, RPL, TEL with IS and BEH C18 column (100 mm column length) for LOS, ATE and HCT; and MET, PIO and GLB.

The best resolution and peak shape, without excessive tailing, were obtained by use of the BEH C18 column for simultaneous determination of AML, HCT, LOS with IS.

The best resolution and peak shape, without excessive tailing, were obtained by use of the BEH C18 column for simultaneous determination of MET and VOG with IS and
The best resolution and peak shape, without excessive tailing, were obtained by use of the HSS C18 column for simultaneous determination of GLM, MET and PIO with IS.

The method has several advantages, including rapid analysis, a simple mobile phase, simple sample preparation and improved sensitivity and relatively short time. It is suitable for analysis of these antihypertensive and antidiabetic agents in their ternary formulations in a single isocratic run, in contrast with previous methods. This makes the method suitable for routine analysis in quality-control laboratories.