Conclusion
6 Conclusion

1. Selective and validated stability-indicating HPLC assay methods for four single drugs viz. Paliperidone, Nabumetone, Satranidazole and Valganciclovir were developed on a C-18 column. Also the same method was developed for simultaneous estimation of Valsartan and Hydrochlorothiazide in presence of degradation products on a C-18 column.

2. All the methods were transferable to LC–MS.

3. Paliperidone was stable to neutral hydrolysis; however, it showed instability to acidic and alkaline hydrolysis. It showed sufficient degradation in photoacidic and photoneutral conditions. In total, three degradation products were formed.

4. Nabumetone and Satranidazole showed instability only in photoneutral condition.

5. Valganciclovir degraded in acidic and photoacidic stress conditions to form one degradation product in each.

6. Total three degradation products were observed for Valsartan (under acidic, neutral, photoacidic and photoneutral conditions), while Hydrochlorothiazide showed formation of two degradation products under hydrolytic and photolytic conditions.

7. All drugs were found to be unstable in solution state, whereas they were comparatively much stable in solid-state. In total, eight degradation products (three of Paliperidone, each one of Nabumetone, Satranidazole and Valganciclovir, two of Hydrochlorothiazide) were detected and characterized on the basis of mass spectral data.