Low blood pressure and orthostatic hypotension as an adverse effect of antipsychotic drugs

Low blood pressure and orthostatic hypotension were originally described mainly during treatment with low potency antipsychotics such as, for instance, chlorpromazine and thioridazine. These problems usually develop very early, often after the first dose of an antipsychotic.

Orthostatic hypotension has also been reported with second generation antipsychotics. It is a common adverse event of higher doses of clozapine, quetiapine's label includes the recommendation to titrate the dose slowly upwards in order to prevent hypotension. Risperidone, a high potency drug with a strong affinity to alpha-1 adrenergic receptors has a similar label in many countries. It is virtually impossible to determine a true relative risk for these side effects because little data from comparative trials are available.

Sometimes a test dose paradigm in which blood pressure is measured while lying and standing after the ingestion of a low test dose of an antipsychotic gives an indication for the drug's risk to induce a dysregulation of blood pressure. The main risk of this side effect is falls, which, especially in frail and elderly patients, can lead to fractures.

Many patients develop a tolerance to orthostatic hypotension within a few days into treatment. At-risk patients should be started on low doses and slowly titrated up into an effective dose range. A titration period of 3-5 days is generally sufficient. In the case of sustained problems with blood pressure regulation, a change of medication to a drug with lower alpha-adrenergic antagonism is indicated.