Metabolism and elimination of vasopressin

Bioavailability of vasopressin

When exogenous vasopressin is given, it can only be given parenterally. Otherwise, the nonapeptide is destroyed by trypsin, which destroys the bond between amino acids 8 and 9.

The same goes for all of its other peptide analog molecules.

Metabolism of vasopressin

Vasopressin is inactivated by tissue peptidases. Most of this process takes place in the liver and kidneys.

The key feature which renders vasopressin vulnerable to this form of elimination is the 8th amino acid, arginine. A substitution for dextro-arginine results in greatly increased half life (eg. desmopressin)

Half-life of vasopressin is 15-40 minutes.