Preparation and Chemical Evaluation of Cnidii Rhizoma (Part IV*)
Effect of Blanching Conditions on Contents of Some Components

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Summary

To clarify the effect of blanching temperature, rhizomes of Cnidium officinale were soaked in hot water at various temperatures (five degree increments) in the range of 40〜85℃ for 20 min. The blanched rhizomes were dried and the resulting Cnidii Rhizoma samples were chemically characterized by measurements of fructose, glucose, sucrose, ligustilide, ferulic acid, adenosine, dilute ethanol-soluble extract and ether-soluble extract contents, and microscopic detection of gelatinized starch.

Above 45℃, Cnidii Rhizoma having low values of sucrose and dilute ethanol-soluble extract contents was obtained, apparently because of deactivation of enzymes. Above 75℃, the content of adenosine was greatly decreased. On the other hand, the content of ferulic acid increased with increase of the blanching temperature. The gelatinization of starch, which has been believed the most important factor determining the chemical quality of Cnidii Rhizoma, occurred at 55〜60℃, and had no effect on the constituents composition.

Key words

Cnidii Rhizoma, Cnidium officinale, Preparation, Blanching, Gelatinized starch, Dilute ethanol-soluble extract, Sucrose, Ferulic acid, Adenosine, HPLC