Choerospondias axillaris (Roxb.) Burtt et Hill

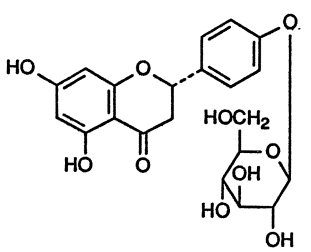
39

39.1 Introduction

Guangzao, Fructus Choerospondiatis, is the dry ripe fruit of *Choerospondias axillaris* (Roxb.) Burtt et Hill (Anacardiaceae), which is collected in the fall when the fruits have become ripe. It is a herbal medicine especially used by the Mongolians as a sedative and cardiotonic. The Chinese Pharmacopoeia requires a qualitative determination of the flavone compound of this official crude drug detected with boric acid and citric acid and detected with $AlCl_3$ after extraction.

39.2 Chemical Constituents

Two flavanone compounds were isolated from the bark of *C. axillaris*, one identified as naringenin and the second, named choerospondin (*39-1*) was determined as the 4′-β-D-glucopyranoside of naringenin [1,2].



Choerospondin (*39-1*)

39.3 Pharmacology

The total flavone extract obtained from the fruit of *C. axillaris* at i.p. doses of 5.1–11.2 mg/kg markedly reduced the rate and amount of oxygen consumption in rats and markedly enhanced the tolerance of mice to hypoxia. Changes in the electrocardiogram induced by pituitrin treatment of rats were markedly reduced by administration of the total flavone extract. Additionally, the total flavone extract antagonized arrhythmia induced by acute myocardial ischemia [3].

In mice, the antiarrhythmic intravenous dose of a total flavone extract from *Choerospondias* fruits was 11.2 mg/kg and the LD_{50} 112 mg/kg [4].