

Anti-inflammatory and Hepatoprotective Medicinal Herbs as Potential Substitutes for Bear Bile.

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Abstract

Practitioners of traditional Chinese medicine (TCM) commonly prescribe medicinal formulations relying on the purported synergism of a combination of plant species, sometimes incorporating animal parts and minerals. Bear bile, obtained from either wild or farmed bears, is a commonly used constituent of traditional medicine formulations. With several bear species now listed under Convention on International Trade in Endangered Species of Wild Fauna and Flora as threatened with extinction and with bear farming being actively campaigned against on ethical grounds, it is important to seek and promote alternatives to the use of bear bile as medicine. This chapter describes and evaluates the scientific data relating to the efficacy of bear bile and potential alternatives to its use, including the use of bile from other animal species, the use of synthetic chemical alternatives, and the use of herbal substitutes. Scientific studies have confirmed the efficacy of bear bile as an antiinflammatory and a hepatoprotective agent. Ursodeoxycholic acid (UDCA), the active component of bear bile is used in a synthetic form in Western medicine and can serve as an alternative to bear bile in the treatment and management of certain cholestatic liver conditions. In TCM practice, bile from domesticated animal species (such as cattle, chicken, and pig) has been used as a substitute for bear bile. Following evaluation of TCM literature and pharmacological/clinical data, the authors propose six plant species, either as single herbs or in combination, *Gardenia jasminoides* (zhī zi;), *Scutellaria baicalensis* (huáng qín;), *Coptis chinensis* (huáng lián,), *Phellodendron amurense* (huáng bǎi;), *Andrographis paniculata* (chuan xin lian;), and *Rheum palmatum* (dà huang;), two medicinal Kampo formulations, Orengedokuto, Dia-Orengedokuto (which originated from traditional Chinese herbal formula Huanglian Jiedu Tang,), and two individual phytochemicals (berberine and andrographolide) as alternatives to bear bile. The proposed herbal alternatives are frequently found listed in traditional formulations also containing bear bile, usually with different therapeutic roles ascribed to them. The existing evidence base for the effectiveness of herbal alternatives is sufficiently strong for TCM practitioners and consumers to consider using these without the addition of bear bile. This consideration is driven by the imperative to protect populations of bears from overexploitation in the wild and when farmed. However, for the identified alternatives to be accepted by users, it is essential that researchers and TCM practitioners collaborate effectively to initiate consumer behavior change.