

药物研究

微射流技术提取虎杖中有效成分的研究

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**摘要:**目的 研究微射流技术对虎杖有效成分的提取效果。方法 以虎杖中总黄酮、总多糖、虎杖苷、白藜芦醇和大黄素等有效成分含量为指标,评价微射流技术和煎煮法对上述成分的提取效果。结果 微射流提取技术对比煎煮法对虎杖中总黄酮和总多糖的提取差异不大(总黄酮1.2倍,总多糖1.3倍);但对虎杖苷、白藜芦醇和大黄素的提取差异较大(虎杖苷3.5倍,白藜芦醇和大黄素在煎煮法中未被提取出来)。结论 微射流技术提取虎杖药材中虎杖苷、白藜芦醇和大黄素具有明显的技术优势。

**关键词:**微射流技术;虎杖;白藜芦醇;虎杖苷;大黄素;黄酮;多糖

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Study on Extraction of Active Components  
from Polygonum Cuspidatum by Micro – jet Technology

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**Abstract Objective:**To investigate the extraction effect of micro – jet technology on the active components of polygonum cuspidatum. **Method:**The content of active ingredients such as total flavonoids, total polysaccharide, polydatin, resveratrol and emodin in polygonum cuspidatum were used as indexes to evaluate the extraction effect of micro – jet technology and decoction on the above components. **Result:** There was no significant difference in the extraction of total flavonoids and total polysaccharides (total flavonoids 1.2 times, total polysaccharides 1.3 times), but there was significant difference in the extraction of polydatin, resveratrol and emodin (polydatin 3.5 times, resveratrol and emodin were not extracted in the decoction method). **Conclusion:**Extraction of polydatin, resveratrol and emodin from polygonum cuspidatum by micro – jet technology has obvious technical advantages.

**Key words** micro – jet technology; polygonum cuspidatum; resveratrol; polydatin; emodin; flavonoids; polysaccharide

虎杖来源于蓼科植物虎杖(Polygonum cuspidatum Sieb. et Zucc)的根与根茎,据药典记载,其味苦寒,具有清热利湿、解毒、退黄、散瘀的功效,主要用于黄疸、癥瘕、风湿、痈毒疔疮等症<sup>[1]</sup>。现有研究报道,虎杖具有多种临床药理作用,目前主要用于保护心肌、抗炎、扩张血管、抗血栓、抗肿瘤,改善阿尔