

In vitro screening of antimotility effect on human sperm with polyphenolic compounds purified from chinese herbal medicines

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Abstract

24 kinds of pure compounds extracted from Chinese herbal medicines were studied for their effects on human sperm motility. 7 were found to inhibit sperm motility at the concentration of 2 mg/ml. These 7 substances were further investigated for their sperm motility-inhibitory effect at the concentration of 3.0 mg/ml, 4.5 mg/ml, and 6.75 mg/ml to test the dose-related response. The results showed that 5 of the 7 extracts, namely casuarinin, cinnamtannin B-1, pedunculagin, epicatechin-(4beta-8)-epicatechin-(4beta-8)-catechin, and catechin have a strong inhibitory effect on sperm motility with dose-response relationship. Since the chemical structures of these extracts have already been determined, further studies should aim at exploring the mechanisms of their antimotility effect on human sperm. It would appear that some traditional Chinese herbal medicines have the potential of becoming new and acceptable forms of male oral contraceptives in the future.