

Sri Lankan low grown Orange Pekoe grade black tea (*Camellia sinensis* L.) promotes male sexual competence in rats

T.B.S. Muthunayake and W.D. Ratnasooriya

Department of Zoology, University of Colombo, Sri Lanka

The prevalence of male sexual dysfunction is rapidly increasing and thus there is a need for novel therapeutics to combat this condition. Interestingly, according to some Sri Lankan traditional practitioners, black tea (*Camellia sinensis* L.) improves male sexual functions. However, studies on scientific validation on this claim are extremely limited. In this regard, we have recently showed that, Sri Lankan high grown orthodox Dust No.1 black tea, which is a broken grade type, possess promising male sexual promoting activity. However, it is well recognized that bioactivity of black tea varies with several factors including its agroclimatic elevation and grade. Therefore, this study was undertaken to investigate the effects on male sexual function of Sri Lankan low grown Orange Pekoe (O.P.) grade black tea which is a whole leaf grade type. This was assessed in sexually experienced male rats using receptive females. Different doses (223, 446 and 1339 mg/kg) of black tea brew (BTB) was prepared according to ISO standards (ISO 3103) and orally administered to separate groups of rats (N = 6/group). Selected standard parameters of male sexual behaviour were monitored 2h following administration of BTB or water (vehicle). The results revealed that, the BTB significantly ($P < 0.05$) increased the number of mounts (by 81-158%), intromissions (28-74%), penile licking (by 33-81%), the ejaculatory latency (88-98%) and intercopulatory interval (by 18-57%), and reduced the intromission ratio (by 6-16%), copulatory efficiency (by 27-47%) and post ejaculatory interval (by 26-40%). On the other hand, number of rats mounting and intromitting, mounting latency, intromission latency and copulatory rate remained unchanged. Collectively, this result indicates that, BTB of O.P. grade tea (whole leaf type) has marked and quick acting aphrodisiac and sexual stimulant activity. This is a novel finding which has value addition to Sri Lankan black tea. It is concluded that, Sri Lankan low grown O.P. grade black tea brew (whole leaf type) possess marked, orally active, quick acting and significant male sexual promoting activity in the rat model used.

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