Effects of Melicope ptelifolia aqueous extract on sperm parameters and testosterone level in Sprague-Dawley rats

ABSTRACT

The increasing number of prevalence infertility cases is becoming a major public health problem in developing countries due to changes in diet and lifestyle. *Melicope ptelefolia* is known for its health benefit as a sex enhancing effect among the Malays folk however there is no clinical data to prove it until these days. The main aim of the present study is to identify the effects of *Melicope ptelifolia* Aqueous extract (MPAE) on Sperm Parameters and Testosterone Level . A total of 30 male Sprague Dawley rats were divided equally into five different groups. MPAE was given by orally gavage for 28 days at a dose of 100mg/kg, 200 mg/kg and 500 mg/kg body weight to the animals of group II (n=6), III (n=6) and IV (n=6), respectively. The animals of group I (control, n=6) had distilled water and group V had sildenafil citrate. Results were analyzed using one way ANOVA test and the data were significant at $p<0.05$. Oral administration of MPAE extract showed an increased sperm count and sperm viability. Oral administration of the MPAE resulted a significant increased ($p<0.05$) for Group II, III and IV in sperm count and sperm morphology. A significant increased increased was recorded for Group I, II, III and IV in sperm viability. However, sperm vitality remained normal in all the groups. From our present experimental findings we are tempted to suggest that the MPAE could be a potential male fertility agent.

Keyword: Melicope ptelifolia; Sperm parameters; Testosterone; Fertility