

Biochemical and Toxicological Evaluations of Aqueous Extract of *Parquetina nigrescens* (Afzel.) leaves on Mifepristone-induced Polycystic Ovarian Syndrome in Rats

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ABSTRACT

The biochemical and toxicological effects of aqueous extract of *Parquetina nigrescens* leaves (AEPNL) at the doses of 50, 100, and 200 mg/kg body weight on mifepristone-induced in Polycystic Ovarian Syndrome (PCOS) was investigated in female Wistar rats. Fifty female Wistar rats (190.00 ± 13.00 g) were assigned into 5 groups (A - E) of ten each: animals in group A received 0.5 ml of distilled water orally on daily basis for 30 days while the mifepristonized rats in groups B, C, D and E also received orally 0.5 ml of distilled water and same volume of the extract corresponding to 50, 100, and 200 mg/kg body weight of AEPNL respectively after which levels of some biochemical and toxicological indices were determined. AEPNL aggravated mifepristone-treatment related increases in albumin, total protein and liver aspartate aminotransferase activity and mitigated the increases in globulin, total bilirubin, urea, creatinine, liver and serum alkaline phosphatase and alanine aminotransferase activities, and no treatment-related histoarchitectural changes occurred in the liver, kidney and uterus of the female rats. Therefore, the aqueous extract of *Parquetina nigrescens* leaves attenuated and also aggravated some biochemical parameters in the serum, liver and kidney but with no histological changes in the liver, kidney and uterus of the mifepristonized female Wistar rats.

Keywords: Mifepristone, toxicology, *Parquetina nigrescens*, Polycystic Ovarian Syndrome