

## Estrogenic activity of friedelin rich fraction (IND-HE) separated from *Cissus quadrangularis* and its effect on female sexual function

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### ABSTRACT

Women experience menopause differently across the world, in terms of their symptomology. Many experience symptoms of menopause like hot flashes, joint pain and loss of libido. Estrogen replacement is the prescribed therapy for most of the sexual dysfunction observed in menopausal women. Many women are reluctant to use exogenous hormone therapy for treatment of menopausal symptoms and are turning to botanical and dietary supplements for relief. In the present study IND-HE (friedelin rich fraction) was studied for estrogenic activity as well as its effect on sexual behavior in ovariectomized female Wistar rats. The rats were divided into 4 groups of six rats each. The Group 1 received distilled water, Group II - IND-HE (75 mg/kg p. o.), Group III - IND-HE (100 mg/kg p. o.) and Group IV received estrogen (estradiol) (1 mg/kg in olive oil suspension, s.c. bi-weekly). The treatment period was 8 weeks. On 1 day, one month and two month of treatment the sexual behavior was studied. At the end of the treatment the blood was withdrawn from retro-orbital plexus. The animals were sacrificed and uterus was removed, weighed and histology was studied. In different group of rats estrous cycle was studied which indicate estrogenic activity and for progestogenic activity of deciduoma formation was studied. The result indicated that IND-HE (75 and 100 mg/kg p.o.) improved sexual behavior parameters. IND-HE (75 and 100) significantly ( $P<0.01$ ) decreased darting and hopping latency. The darting frequency and hopping frequency was significantly ( $P<0.01$ ) improved in IND-HE (75 and 100 mg/kg p.o.) as well as estrogen group. Lordosis interval (LI) was increased significantly in estrogen group after 1st month ( $P<0.05$ ), and after 2nd month ( $P<0.01$ ). IND-HE (100) treatment showed increase in LI after 1st month ( $P<0.05$ ) remained during 2nd month ( $P<0.01$ ). While IND-HE (75) treatment increased LI only after 2nd month ( $P<0.05$ ). IND-HE (75 and 100 mg/kg p.o.) showed estrogenic activity as indicated by vaginal cornification, increase in uterine weight and rise in serum estrogen.

### KEYWORDS

*Cissus quadrangularis* . estrogenic activity . female sexual behavior

### REFERENCES