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Therapeutic potentials of conypododiol

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Background: The purpose of this research is to investigate the anti-pyretic, anti-inflammatory and antinociceptive effects of conypododiol from Asparagus adscendens. Natural products are used from centuries for different ailments. The majority of drugs isolated from plants have shown good results. It is also reported that most of synthetic drugs have severe unwanted effects. Efforts are made to investigate bioactive plants for introduction and development of drugs having efficacy and the least side effects. The investigations carried out were successful and the compound showed good results.

Objectives: The main objective of this study is to investigate anti-inflammatory, anti-pyretic and antinociceptive effects of conypododiol.

Methods: Brewer's yeast method for pyrexia, paw oedema-modelling, acetic acid induced test for writing and the increasing-temperature hot plate test method were performed.

Results: Different strengths of conypododiol were applied and compared with standard drugs like diclofenac, tramadol, paracetamol and indomethacin. Diclofenac (10 mg/kg) and conypododiol (20 mg/kg) significantly inhibit nociceptive sensation in writhing test. The compound in (40 mg/kg) showed 58.97% inhibition in writhing test for investigation of antinociceptive effect. Tramadol (10 mg/kg) and conypododiol (20 mg/kg) significantly inhibit the nociceptive sensation in pain model (hot plate test). Paracetamol (150 mg/kg) and conypododiol (40 mg/kg) significantly ($P<0.01$, $P<0.05$) inhibit pyrexia in yeast induced pyrexia model. Similarly, conypododiol exhibited anti-inflammatory activity in paw edema modelling and 40 mg/kg markedly effective i.e. 91.92% inhibition.

Conclusion: The results showed that conypododiol possess the effects like anti-inflammatory, anti-nociceptive and anti-pyretic. So the plant confirms the indigenous utility against inflammation, pyrexia and pain.