## IR - PERPUSTAKAAN UNIVERSITAS AIRLANGGA

## PROTECTIVE EFFECT OF Polygonum minus LEAVES ETHANOL EXTRACT ON CADMIUM CHLORIDE-INDUCED TOXICITY ON SPERMATOGENIC CELLS OF MICE (Mus musculus) TESTES

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## **ABSTRACT**

The aim of this study was to investigate the protective effect of *Polygonum* minus leaves ethanol extract on histopathological changes of spermatogenic cells in the testes induced by cadmium chloride in mice (Mus musculus). Thirty male mice were divided into five groups, six mice each group and administered through intragastric gavage with differents treatments for 21 days. The treatment groups were C- (CMC Na 0.5% solution + aquadest), C+ (CMC Na 0.5% solution + 12 mg/kg bw cadmium chloride), T1, T2, and T3 (200, 400, and 800 mg/kg bw Polygonum minus leaves ethanol extract respectively + 12 mg/kg bw cadmium chloride). The observation was done by examined the histopathological canges of spermatogenic cells using Johnsen scoring method. The data was analyzed by Kruskal Wallis and Mann-Whitney Test. The research showed significant differents (p < 0.05) among the treatment groups. The conclusion of this research is Polygonum minus leaves ethanol extract can protect the spermatogenic cells of mice testes from destructive effect of cadmium chloride, and the best dose is 400 mg/kg bw.

**Keywords:** Polygonum minus, cadmium chloride, Mus musculus, testes