

## عنوان مقاله:

The effects of *Eucheuma cottonii* on alveolar macrophages and malondialdehyde levels in bronchoalveolar lavage fluid in chronically particulate matter ۱۰ coal dust-exposed rats

## محل انتشار:

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## خلاصه مقاله:

**Objective(s):** To investigate the effect of *Eucheuma cottonii* on alveolar macrophages (AM) and malondialdehyde (MDA) levels in bronchoalveolar lavage fluids (BALF) in particulate matter ۱۰ (PM<sub>10</sub>) coal dust-exposed rats. **Materials and Methods:** Ten groups, including a non exposed group and groups exposed to coal dust at doses of ۶.۲۵ (CD<sub>۶.۲۵</sub>), ۱۲.۵ (CD<sub>۱۲.۵</sub>), or ۲۵ mg/m<sup>۳</sup> (CD<sub>۲۵</sub>) an hour daily for ۶ months with or without supplementation of ethanolic extract of *E. cottonii* at doses of ۱۵۰ (EC<sub>۱۵۰</sub>) or ۳۰۰ mg/kg BW (EC<sub>۳۰۰</sub>). The number of macrophages was determined using a light microscope. MDA levels were measured by TBARS assay. **Results:** EC<sub>۱۵۰</sub> insignificantly ( $P > ۰.۰۵$ ) reduces the AM in CD groups compared to non treatment groups. EC<sub>۱۵۰</sub> and EC<sub>۳۰۰</sub> significantly ( $P < ۰.۰۵$ ) decreased MDA levels in CD<sub>۱۲.۵</sub> and CD<sub>۲۵</sub> groups relative to non treatment groups. **Conclusion:** *E. cottonii* attenuated oxidative stress in chronic exposure of PM<sub>10</sub> coal dust.

## کلمات کلیدی:

Alveolar macrophage, Coal dust, *Eucheuma cottonii*, Malondialdehyde

## لینک ثابت مقاله در پایگاه سیویلیکا:

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