

**198** Eddleston, M; Juszczak, E; Buckley, NA; Senarathna, L; Mohamed, F; Dissanayake, W; Hittarage, A; Azher, S; Jeganathan, K; Jayamanne, S; **Sheriff, MHR**; Warrell, DA

Multiple-dose activated charcoal in acute self-poisoning: a randomised controlled trial. Jarticle; Lancet Vol: 371 No.(9612) 2008\_.579-87pp

Abstract :The case-fatality for intentional self-poisoning in the rural developing world is 10-50-fold higher than that in industrialised countries, mostly because of the use of highly toxic pesticides and plants. We therefore aimed to assess whether routine treatment with multiple-dose activated charcoal, to interrupt enterovascular or enterohepatic circulations, offers benefit compared with no charcoal in such an environment. We did an open-label, parallel group, randomised, controlled trial of six 50 g doses of activated charcoal at 4-h intervals versus no charcoal versus one 50 g dose of activated charcoal in three Sri Lankan hospitals. 4632 patients were randomised to receive no charcoal (n=1554), one dose of charcoal (n=1545), or six doses of charcoal (n=1533); outcomes were available for 4629 patients. 2338 (51%) individuals had ingested pesticides, whereas 1647 (36%) had ingested yellow oleander (*Thevetia peruviana*) seeds. Mortality was the primary outcome measure. Analysis was by intention to treat. The trial is registered with controlled-trials.com as ISRCTN02920054. Mortality did not differ between the groups. 97 (6.3%) of 1531 participants in the multiple-dose group died, compared with 105 (6.8%) of 1554 in the no charcoal group (adjusted odds ratio 0.96, 95% CI 0.70-1.33). No differences were noted for patients who took particular poisons, were severely ill on admission, or who presented early. We cannot recommend the routine use of multiple-dose activated charcoal in rural Asia Pacific; although further studies of early charcoal administration might be useful, effective affordable treatments are urgently needed.