

Adverse Effects of Natural Products: A Brief Pre-Systematic Review

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Background: Natural products are commonly used for treating health problems. These products may be associated with adverse events, which are defined as “noxious and unintended response to a medicinal product” by the European Medicine Agency.

Objectives: To identify studies describing at least one adverse event (or with potential to promote an adverse event) related to the use of natural products, as well as to describe the involved product(s) and adverse event(s).

Methods: A pre-systematic review following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses criteria. Keywords: “natural product(s)” and [“adverse drug reaction(s)” or “adverse effect(s)”]. Screened databases: *PubMed*, *SciELO*, *DOAJ* and *Google Scholar*. Inclusion criteria: Papers describing at least one adverse event associated with the use of natural products and published between 2017 and 2019. Exclusion criteria: Repeated studies, reviews and papers written in other languages than English, Portuguese, French or Spanish.

Results: 104 studies were identified (20 *PubMed*; 0 *SciELO*; 2 *DOAJ*; 82 *Google Scholar*), but only 10 were selected (4 *PubMed* and 6 *Google Scholar*): 1 *in-vitro* study; 2 non-clinical studies, 1 study reporting *in-vitro* and clinical data and 5 case reports. Globally, 997 reports of adverse drug reactions with natural products were identified, mainly non-severe cases.

Conclusion: Since a limited number of studies was found, we conclude that adverse events due to natural products may be underreported or natural products may have a good safety profile. This review contributes to assuring the safety of natural products consumers by evaluating the knowledge/information on the potential adverse events and interactions of these products.

Keywords: Natural products, bioactive compounds, adverse drug reaction, adverse effect, patients' safety.