The Effects of a Natural Extract on Lymphocyte Activation

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“Natural herbs,” “oil treatments,” “earthly remedies”: all of these things are the hype of today’s medical world. Everyone wants to steer clear of all of the “unnatural” things and “go green”. Parents are so suspicious of vaccinations and antibiotics because of their supposed “links to autism” and other mental and physical disorders that some even refuse to get their child vaccinated. It’s the new fad not to take children to the doctor and use “natural alternatives” instead. But do these alternatives work? In this experiment, an extract of garlic, allyl disulfide, is used as an anti-inflammatory. Garlic has been used for centuries and is known for being anti-bacterial, anti-inflammatory, and anti-cancer. The hypothesis of this research was that the garlic would show an anti-inflammatory response by suppressing the expression of two proteins, CD69 and CD25 that attach to cells when inflammation is activated and lower proliferation rates of these cells. This test was done on human peripheral blood mononuclear cells (PBMCs). The garlic at a concentration of 5µg/mL was shown to have the most promising results, by suppressing the expression of CD69 from 30% to 12%, but showed contradictory results, as the garlic increased proliferation. Further testing must be done to see the full spectrum of results, and a placebo test could be done to see if the garlic as an ingestible pill could show different results.

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