

Modulatory effects of *Terminalia arjuna* in medicated stable patients of coronary artery disease

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Coronary Artery Disease (CAD) is the most common cause of morbidity and mortality. Natural products as medicine are increasingly being used in the treatment of various disorders. *Terminalia arjuna* (TA) is widely used in Indian medicine (Ayurveda) for various cardiovascular ailments and possesses potent cardioprotective properties. In the present study, we investigated the therapeutic potential of TA on the inflammatory interactions which remain unresponsive to currently employed therapies. In a placebo-controlled double-blind study, 100 patients with stable CAD, on standard therapy for more than three months were enrolled and received either placebo or 500 mg of *T. arjuna* twice a day in addition to the standard treatment. Serum lipid and lipoprotein profile and inflammatory molecules were determined in study subjects at baseline, 3 and 6 months. Increased levels of serum Triglycerides, VLDL-C, hsCRP, Ox-LDL, IL-18 ($p < 0.01$), IL-6 and TNF- α levels were observed at baseline ($p < 0.05$) whereas total Cholesterol, LDL-C and IL-10 ($p < 0.01$) levels were found to be significantly decreased in patients vs. healthy controls. In patients receiving *T. arjuna* treatment, a significant decrease in serum Triglycerides, VLDL-C ($p < 0.001$), hsCRP, IL-18 ($p < 0.001$), IL-6 and TNF- α ($p < 0.05$) and a significant increase in IL-10 ($p < 0.05$) levels was observed at 6 months. In conclusion, our study highlights the evidence that *T. arjuna* provides significant protection against persistent inflammation in stable CAD patients and can be considered for use in future studies as an adjuvant therapy.

Biography

Divya Kapoor is presently pursuing her Ph.D. in the Department of Experimental Medicine and Biotechnology, PGIMER, Chandigarh, India. She holds an open ICMR Fellowship and presently working as ICMR-SRF. She completed her master's in Microbiology from Guru Nanak Dev University, Amritsar in 2007 with Distinction and was selected for University Scholarship for the year 2006-2007 and 2007-2008.

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