

Effect of nanoparticles in *Terminalia arjuna* drug to control lipid levels in hyperlipidemic patients

Rajesh Barve
Virar Homoeopathic College, India

The food habits and day life style have severe effects on lipid levels which influence the heart functioning. We report the first time the use of nano dose of alcoholic extract of *Terminalia arjuna* bark to have preventive and protective role in cardiovascular disorders and normalizing increased lipids in blood of diseased patients. In addition, the effect of nanoparticles reaching the target tissues directly has heart muscle strengthening properties.

The homoeopathic method of treatment was used with 10 % arjuna powder particles in alcohol solution. Each patient was given a dose of 10 drops per day which contain 83 mg of arjuna solids. Dynamic light scattering (DLS) technique revealed that 10 % solution (tincture) has nanoparticles with average of 7 nm in diameter size. The basic drug was administered to 32 patients for a period of 2 weeks to 12 weeks. Significant drop was noticed in lipid profile and an increase in HDL (good cholesterol) level was also observed. These 10 drops contain approximately 5635 nanoparticles.

10 % tincture was further diluted to 1 % (called as 1X solution in Homoeopathy) and then to 2X (1 % of 1X). It has been observed that 1X and 2X solutions showed further reduction in the size of nanoparticles. The results show that the decrease in nanoparticles size is due to succussions process and therefore the higher diluted drugs in Homoeopathy give rise to still better results to the patients.

Detailed results on the patients' lipid profiles with different dilutions and treatment periods have been carried out.

To our knowledge this is the first ever experiment using arjuna drug solution in Homoeopathy to understand the behavior of nanoparticles to control lipid levels in hyperlipidemic patients. Also it has been observed that higher dilutions too contain a few numbers of nanoparticles which has the potential to cure the disease. This is the simple and cost effective oral method of drug delivery.

Biography

Rajesh Barve is a medical practitioner by profession. After completing his M.D. in Homeopathy, he is working as Head, Repertory Department of Virar Homeopathic Medical College, Maharashtra and runs his clinic in Mumbai.

Dr. Barve's main interest is to use herbal medicines in the nanoparticles size in alcohol medium to treat the patients. He has published several original peer reviewed papers and contributed his work in the book chapters of international repute. He is also on the Editorial board of Homeopathic journal of medicine.

rsbarve@yahoo.co.in