RE: Shatavari Review Summarizes Promising Results for a Range of Conditions


Shatavari (Asparagus racemosus, Asparagaceae) is used in Ayurvedic medicine to treat aging, boost immunity, improve longevity, vigor, and mental function. It has also been known to assist in treating neurological disorders, hepatopathy, tumors, and dyspepsia. It has antioxidant, anti-inflammatory, antiseptic, and antimicrobial properties. Although the phytochemical constituents of the plant depend on its geographical zone of availability, the major phytochemical constituents present in the roots are steroidal saponins. The authors reviewed current literature to address the pharmacological benefits of shatavari.

It was found that shatavari root extract contains alkaloids, flavonoids, tannins, phytosterols, glycosides, carbohydrates, proteins, and fats. Methanolic and ethanolic root extracts showed positive results against Escherichia coli, Shigella dysenteriae, Vibrio cholerae, Basillus subtilus, Staphylococcus aureus, Shigella sonnei, and Shigella flexneri bacteria. It also demonstrated anti-inflammatory action by reducing cytokine production, skin thickness, myeloperoxidase activity, and through histopathological evidence. Research has shown various antioxidant effects, including that shatavari protects against gamma radiation damage in the liver and lipid peroxidation.

In vitro and in vivo studies examined shatavari's effects on stress-induced depression. Methanolic extracts of the root were found to have significant antidepressant activity, possibly due to its effects on serotonergic and noradrenergic systems, as well as through the augmentation of antioxidant defenses.

Studies have shown that shatavari possesses hypocholesterolemic effects, as well as an ability to potentially decrease lipid peroxidation. Other studies indicated a decrease in low-density lipoproteins, very low-density lipoproteins, and triacylglycerol levels in blood after administration. Shatavari demonstrated hepatoprotective activity in animal models. In one study, wistar rats pretreated with the aqueous root extract were then treated with diethylnitrosamine. An amelioration of oxidative stress and hepatotoxicity caused by the diethylnitrosamine was seen in the group which received the shatavari extract.
Animal models showed a significant increase in the amount of insulin released after being treated with ethanolic root extract; methanol and aqueous extract did not demonstrate as much hypoglycemic activity. In vitro studies also showed a decrease in the serum glucose levels after shatavari administration. In vivo and in vitro root extracts have shown the competitive blocking of rat, guinea pig, and rabbits' uterine contractions induced by oxytocin. Shatavari is also known to have active components that protect against female infertility, increase libido, decreases inflammation of sex organs, improves conception rate, reduces or prevents abortion, increases lactation, and improves the hormonal balance after postpartum.

The authors conclude that shatavari shows various pharmacological and medicinal properties; however, many of the research articles, study types, and significance of the results are not described in detail for the actions that are stated in this review. Although shatavari could possess each of the actions discussed in this review, it is difficult to ascertain the validity of the results of the included studies based on the information given.

—Dani Hoots

The American Botanical Council has chosen not to reprint the original article.