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# **Review Article**

# BRYONIA LACINIOSA LINN. (SHIVLINGI) SEEDS: A HOPE FOR DIABETES AND IMPOTENCY Pandey H.S<sup>1</sup>., Pandey R.P<sup>1\*</sup> and Singh B.K<sup>2</sup>

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# **ABSTRACT**

Bryonia laciniosa Linn. commonly called as shivlingi is a medicinal plant belongs to the family cucurbitaceae. It is commonly used as hypoglycemic, a bitter tonic, hepatoprotective, antipyretic and laxative and used to correct metabolic abnormalities. The leaves of the plant are generally applied as an anti-inflammatory paste. Women take the seeds in combination with other medicinal herbs for helping conception and prevent miscarriage. It also possess androgenic as well as anti-diabetic activity

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# INTRODUCTION

"Jivem Sharadah Satam" i.e. longevity for hundred years has been the eternal desire of the man since the time immemorial. The usefulness of plants, animals and mineral recourses in providing physical fitness, social well beings and mental harmony has been mentioned in ancient literature e.g. Ayurveda in India, pun tea in china, history of plants in Greece etc. These are the main sources of several useful drugs even today and also serve as ready reference for medicinal chemistry.

During past few decades, modern synthetic medicines have come into prominence with miraculous and instantaneous results. However, these are not providing adequate relief to common people of the developing countries due to their soaring prices and complicated side effects. Due to this, it is a worldwide realization today that the use of natural products as medicines is advantageous over synthetic ones. Extracts of some plants even in crude form are known to exert remarkable effects over biological systems. Such effects are due to certain chemical constituents present in plants and are commonly known as "active principle." Systematic phytochemical investigations of some medicinal plants have led to the isolation and characterization of some of the active principles and are widely used as potent drugs.

In recent times, focus on plant research has increased all over the world and a number of research works have been carried out to show immense potential of medicinal plants used in various traditional systems. Over the last few years, researches have aimed at identifying and validating plant derived substances for the treatment of various diseases. Similarly it has already been proved that various parts of plants such as leaves, fruits, seeds etc. provide health and nutrition promoting compounds in human diet.

### Plant

Bryonia laciniosa Linn. commonly called as shivlingi is a medicinal plant belongs to the family cucurbitaceae. It is commonly used as hypoglycemic herb by the native people of Porbander region. A literature survey indicated the use of entire plant as a bitter tonic, hepatoprotective, antipyretic and laxative. It is also used to correct metabolic abnormalities. The leaves of the plant are generally applied as an antiinflammatory paste (2-3). Women take the seeds in combination with other medicinal herbs for helping conception and prevent miscarriage. Traditional healers of Gulgul village, Chhattisgarh recommend the use of 3-4 seeds once daily by women, in empty stomach for 1 to 2 months to be get a male child (4). Gond and Bharia tribes of Patalkot valley worship this plant and they consider that, this herb is boon for the childless parents. Traditional healers of Gaildubba suggest a mixture of Shivlingi seeds with Tulsi (Ocimum basilicum) leaves and Jaggery in female infertility (5). The seeds of Shivlingi are potentially contraceptive when used in combinaton with ginger (dry), pepper, Putrajivi, Root bark of vata (Ficus bengalensis) and milk (6). Besides, abortificient action of shivlingi seeds has also been reported when it is

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combined with equal quantity of ashwagandha roots and consumed with sugar and milk (7) (Bhawda Janya Sarkya, Amalad).



Increased spermatogenesis and a significant increase in sperm count in epididymis of the male albino rats with concurrent increase in serum testosterone and luteinizing hormone have been reported with the use of shivling is seeds.



The above studies clearly reflect androgenic activity and its effects on hypothalamic pituitary gonadal axis (8). The ethanolic extract and saponin fraction of the seeds of this plant were administered to diabetic rats and compared with the insulin administration on rats serving as positive control. This study reveals the efficacy of *B. laciniosa* seed extract in the amelioration of diabetes and its associated complications (9).

Therefore it is the need to begin of a series of studies that could be undertaken with advanced parameters like HPLC, pharmacology, animal and clinical trials to put forward a very important contribution from Ayurveda and India in the area of reproductive medicine and diabeties.

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