

SHORT COMMUNICATION

INVESTIGATION OF THE PHARMACOLOGICAL ACTIVITY OF ETHANOLIC EXTRACT OF *ABRUS PRECATORIUS* SEEDS

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The ethanolic extract of the *Abrus precatorius* seeds was evaluated for possible bronchodilator activity by using various *in vivo* and *in vitro* models in guinea pigs. Animal studies involved the use of histamine induced broncho-constriction in guinea pigs. Results showed reduced activity at lower concentration but significant protection at higher doses.

Key words: *Abrus precatorius*, Acetylcholine, Histamine, Bronchodilation.

INTRODUCTION

Plants and their parts have been remained as reservoir of bioactive components since decades (Jain *et al* 2011; Jenny *et al* 2012; Deb *et al* 2013). *Abrus precatorius*, commonly known as jequirity, Crab's eye, rosary pea, precatory pea or bean, is a slender, perennial climber that twines around trees, shrubs, and hedges. The plant is a slender twiner with alternately placed compound leaves. *Abrus precatorius* L. (Fabaceae) is a vine originally native to India that is now commonly found throughout the tropical and subtropical parts of the world (Morton, 1982). It grows best in fairly dry regions at low elevations. Leaves, roots and seeds are used as a medicament in traditional system of Indian medicine for antihelminthic, antioxidant, antidiarrhoeal, antiemetic and inhibits intestinal motility (Gul *et al* 2013). Seeds of plant (**Figure 1**) are used for the treatment of diabetes and chronic nephritis (Manago and Alumanah, 1982). It grows by the seashore among the undergrowth and in hedges. Seeds when broken or chewed or when the external coat is removed are toxic.

The highly attractive seeds are sought after by children for beads. They are sometimes made into necklaces and rosaries. Seeds are extremely



Fig. 1. Seeds of the plant *Abrus precatorius*

poisonous if cracked; a single one, if swallowed can be fatal. The phytochemical constituents of the plant are well established and abrin, a highly toxic protein, obtained from the seeds is amongst the numerous compounds isolated from the plant. Other compounds include abrusoside E, abrusgenic acid, and other known compounds such as cycloartenol, gallic acid and glycyrrhizin⁵. A survey of literature has revealed some scientific justification for some of the traditional uses of the plant including as antimicrobial and antimalarial potential.