

# Wound healing activity of *Sesbania grandiflora* Linn flower ethanolic extract using excision and incision wound model in wistar rats

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**Abstract:** *Sesbania grandiflora* Linn belonging to family *Leguminosae* is well known medicinal plant in various region of india. Flower extract used in various disease like nasal catarrh, headache, laxative, aperitif, gout, ozoena, bronchitis, pain. Present study is concern mainly with evaluation of wound healing activity of flower ethanolic extract in wistar rats using excision and incision wound model in the form of ointment using two concentration (2 and 4 % w/w ointment) of flower extract in simple ointment base. Both concentration of ethanolic extract showed significant response in both the wound type tested when compared with control group. Nitrofurazone ointment (0.2%w/w) was used as standard drug.

**Key words:** wound healing, *Sesbania grandiflora*, ethanolic extract, Nitrofurazone.

## Introduction

Wound healing involves various steps like coagulation, formation of granulation tissue, coagulation and acquisition of wound strength. During the formation of new tissue endothelial cell proliferates<sup>1</sup> and forms new blood vessel. *Sesbania grandiflora* belonging to family *Leguminosae* (Hindi: Agati, Hadga,) found in various region of India, Srilanka<sup>16</sup> and southeast asia<sup>20</sup>. Its leaf used in night blindness<sup>15</sup> and in treatment of ulcer<sup>21</sup>, flower used as antiseptic, antioxidant<sup>17,19,24</sup>, emollient<sup>2</sup>, astringent, and in relieving pain<sup>2</sup> in folkloric medicinal use. Flower also used in obesity, thirst, headache<sup>13,14</sup>, ozoena, dim vision<sup>3</sup>, indigestion, anaemia<sup>20</sup> gout, bronchitis<sup>7,20</sup>, nyctalopia, quarantan fever<sup>20</sup> also stimulate milk secretion, libido. The plant also shows anxiolytic, anticonvulsive<sup>18</sup>,

hepatoprotective<sup>20, 22</sup> and antihelmintic<sup>23</sup> properties. The literature survey revealed that no scientific study on wound healing activity of flower extract of this plant has been reported. Their fore objective of present study was to evaluate wound healing activity of *Sesbania grandiflora* Linn flower extract against excision and incision<sup>11</sup> wound model in wistar rats.

## Materials and Method

### Plant material

*Sesbania grandiflora* flower were collected from Pusad local area in Yavatmal district of Maharashtra india.