INTRODUCTION
The problem of the scorpion sting is extremely old, nevertheless, the toxicology of the active substances of the venom has not yet been completely elucidated.

The scorpion has often been referred to as "public enemy number one" among the many venomous reptiles and insects that thrive in tropical and subtropical regions, scorpions' stings are frequently the cause of morbidity and mortality in children. Although more than 650 species of scorpions have been recognised throughout the world (Frozier, 1968); Only about 86 species are known in India (Caius and Mashkar, 1932). In South India, the small red Buthus tamulus and the large black Palamonous gravimonus are very common. Of the two Buthus is more toxic and invariably it is responsible for the children dying of scorpion stings (Purshotham Rao et al, 1969). In Gujarat, the scorpions belonging to genus Buthus are more frequently seen, and are notoriously poisonous. Each year some cases of children in lower age groups die due to scorpion stings as could be seen from the records of V.S. General Hospital and Smt.N.H.L. Municipal Medical College, Ahmedabad. The children are more prone to serious complications and invariably have local pain and swelling at the site of the sting in addition to restlessness, drowsiness, sweating, nausea, vomiting, cold extremities, rapid thready pulse, supraventricular tachycardia, congestion
in lungs, haematuria and finally peripheral circulatory failure. A few cases had in addition gallop rhythm, dyspnoea and feeble heart sounds, which are the classical signs of myocarditis.

Dave et al (unpublished observation), in clinical analysis of 15 cases of scorpion sting poisoning in children, admitted at V.S. General Hospital, Ahmedabad, within a short period of 4 months (July 1974 to October 1974), found deaths in 11 patients inspite of prompt treatment, due to pulmonary complications and myocarditis, which were supported by autopsy findings. Four patients fully recovered and were discharged.

One of the patients relative brought the scorpion which had stung his child. Later on it was identified by Haffkins Institute, Bombay, India as "Buthus tamulus".

Myocarditis is not well documented in literature as an important cause of death in scorpion stings. Only Poon-King (1963) made a definitive point in 39 cases out of 45 patients, that the toxic myocarditis was the important cause of death. Grasset et al. (1946), Bennett (1966) and Brown (1967) gave neurotoxicity as the important cause of death. While Del-Pozo (1945) has reported respiratory paralysis, the cause of death by venom from several species of Mexican scorpions. Wilson (1904) made extensive studies upon the action of the venom.
He injected scorpion venom in various animals and noticed muscular spasms, rise of temperature, rise of blood pressure, copious salivary and lachrymal secretions, and finally muscular paralysis. Gajalakshmi (1978) reported fall of B.P. and tachycardia in dogs and cats with scorpion venom and lytic cocktail was used as an antidote. Hassan and Mahmeud (1953) have used bellafoline and dihydroergotamine to neutralize the action of scorpion venom in rats. Hassan Mohammed (1942) has reported the use of atropine and ergotoxin to combat the poisoning effects of scorpion venom in dogs. Hassan (1940) has also been successful in saving the lives of 3 out of 4 cases of children with femergin and antiserum.

Moreover only with antiscorpion serum complete immunization is not possible with 60-80 ml (I.M.), even in infants and certain physiological reactions are never suppressed (Sergent, 1947).

These controversies, other varying effects from species to species and paucity of literature on the venom from Buthus tamulus species encouraged us to study the detailed pharmacology of scorpion venom (Buthus tamulus).

Furthermore the interpretation of clinical signs and symptoms of scorpion venom poisoning have not been much
investigated, we therefore considered it worth while to analyse the problem of scorpion sting with the following objectives.

(1) The study of toxic effects of venom on experimental animals.

(2) The investigation of sites and mechanisms of action.

(3) The possible lines of treatment in combating the toxic effects of venom.