

CHAPTER I



Introduction

Kidney is one of the important organs in the body, its important functions are formation of urine and control homeostasis of the body fluid. Many papers reported about the effects of viper venom on the renal function, but the mechanisms responsible for development of acute renal failure following viper envenomation are still unclear (Aung-Khin, 1978). Although, many studies have been done to elucidate the effects of Russell's viper venom on either toxicopharmacological actions (Chopra and Chowhan, 1934; Lee, 1948) or haematological changes (Lee et al., 1955; Macfarlane, 1967), but the pathophysiological studies are very little. Aung-Khin (1978) studied in experimental animals injected with lethal doses of Russell's viper venom and human victims of viper snake bite to elucidate the pathogenesis of renal tubular necrosis due to viper envenomation. Pathophysiological studies of this venom on renal function in human, is usually undertaken by observation patients in hospitals. Previous attempts design the experiments in experimental animals have failed, because the animals died before getting the results (Benyajati, B.E. 2517).

This study aimed to elucidate the factors responsible for the development of acute renal failure following Russell's

viper envenomation. Cardiovascular functions and renal functions have been investigated in dogs in order to determine; first, whether the changes of renal functions are due to the systemic changes of cardiovascular system. And second, whether the venom has direct effects on kidney.



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