INTRODUCTION:

The aim and endeavours of medical profession and sciences have been to promote life (a state between death and no death) both in its quality and span. To meet these objectives, search for remedial agents has been as old as man himself. Modern medicine has been able to protect and prolong life by supporting "vis medicae nature".

Natural healing power is an inbuilt devise in living organism to enable it to make-good the damage/s imposed by environment. Of the wide variety of damages caused by environment the commonest one is 'Wound' - a disrupted state of tissue/s. Wounds, surgical or traumatic, would eventually heal. But, quality of healing, its speed and consequential scar (cicatrization), all have been of concern to medical person through ages. In the management of wound control of pain, bleeding and infection have received due attention and have been successfully dealt with. These achievements together with astounding advances in surgical skill and technique have greatly improved aesthetics of wound. Yet, there is a ring of truth in what has been recently emphasised "the scope of surgery over the centuries has been directly proportional to the degree to which we have been able to depend upon repair and resistance to infection" (1). This is because healing is an intricate physiological process and like other processes it is also affected by various factors including drugs. Therefore, it could be suspected that drugs used to mitigate pain, control infection, modify blood coagulation may influence healing process independent of or consequent to primary action for which they are used.
Our knowledge and documentation about the consequences of drug therapy on wound healing is far from satisfactory. There is need for drug profile on wound repair, especially for those drugs that are commonly used peri-surgically. In recent years, the impact of chemotherapeutics used in malignancy is being appreciated (2, 3, 4) and new strategies in their peri-surgical use are emerging (5). There is hardly any information on the impact of pro- and anti-coagulant therapy on healing process barring few reports on heparin.

Since, the fundamental protective responses to injury reside in those systems that mediate hemostasis, inflammation and immunity information about the impact of drugs that modify these systems is all the more important. Haemostasis and fibrinolysis appear to be germane to the healing process. Blood clotting is inextricably linked to inflammation and tissue repair (6). The drugs used in therapeutics to alter the multifactorial balance between procoagulant and anticoagulant factors can affect wound healing. Furthermore, recent studies have implicated blood coagulation in cell-proliferation (7) a process that is essential for wound repair. Thus, it is possible that pharmacologic intervention with fibrin deposition and lysis has bearing on healing process. If so, in what way such intervention affects wound healing needs to be investigated. This has prompted the present study.

Current investigation addresses itself to identify the effects (if any) of commonly used pro- and anti-coagulants on wound healing. Also, it attempts to correlate changes caused by these drugs in physical, biochemical and histological profiles of healing of wound wherever possible. It is anticipated that the study would help:
(a) defining the merits and demerits of perisurgical use of drugs that alter blood clotting and related processes.

(b) suggesting ways and means of minimising ill-effects of such use of drugs on healing.

(c) put-forward useful therapeutic measures to promote healing of wounds in patients with coagulopathies.

(d) provide pharmacological evidences for the role of clot formation in wound healing.

It is also hoped that the findings of present investigation will reappraise the use of procoagulants and anticoagulants during perisurgical period.