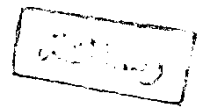
THRICE VERSUS TWICE WEEKLY HEMODIALYSIS

THESIS

SUBMITTED FOR PARTIAL FULFILMENT OF
MASTER DEGREE IN
INTERNAL MEDICINE



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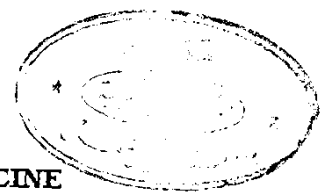

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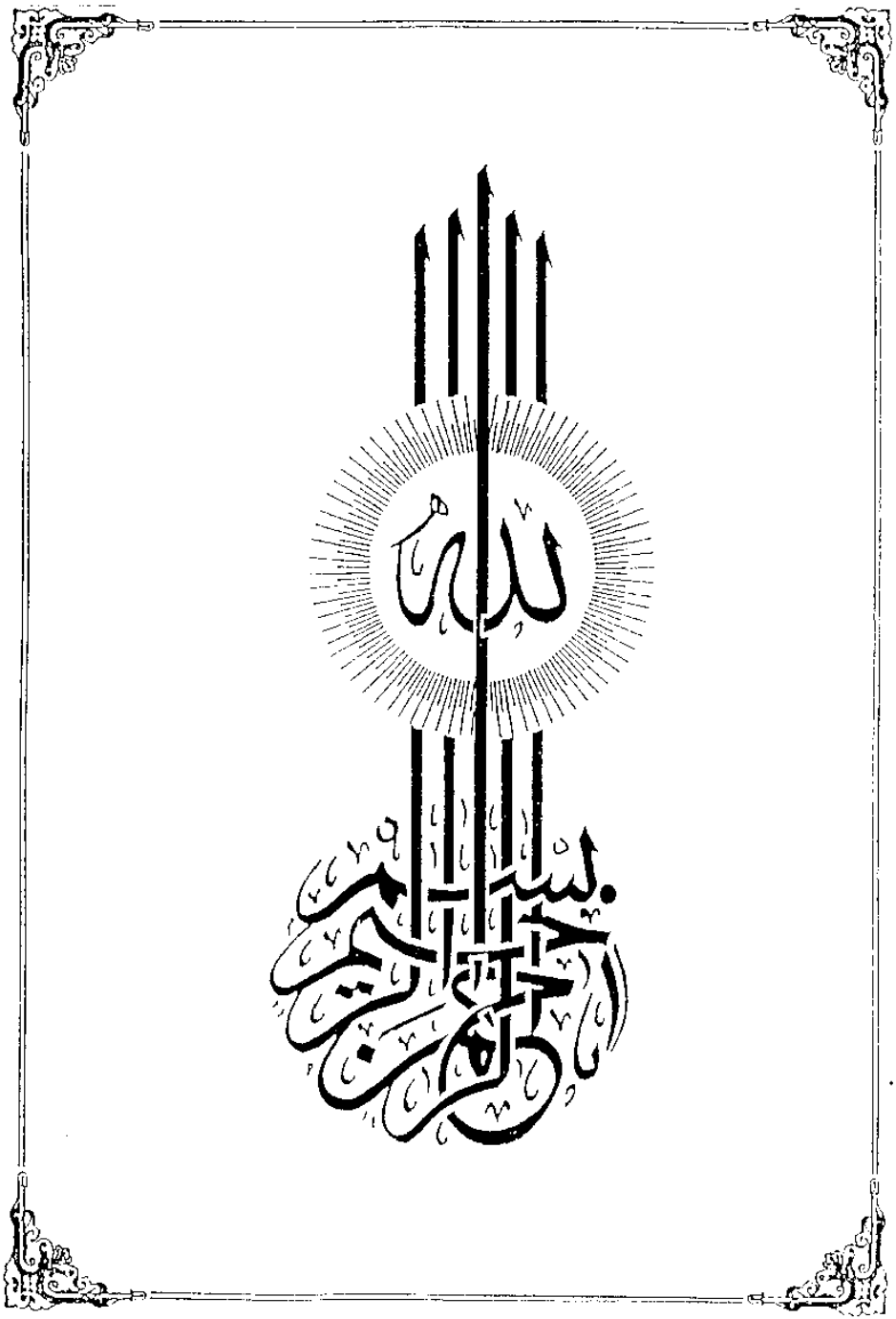

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INTRODUCTION

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Some physicians recommended a predominantly twice weekly hemodialysis to reduce cost. A recent report of the European Dialysis and Transplantion Association (EDTA) showed that 82% of Egyptian patients are dialyzed twice weekly and only 16% thrice weekly while 88% of patients of various countries in the registry are dialyzed thrice weekly and only 10% dialyzed twice weekly (Fassbinder et al., 1991).

It has been recently stated that "Any attempt to reduce the frequency of dialysis to less than three times per week in absence of significant residual kidney function is fraught with danger (Delano, 1989).

Inadequately dialyzed patients are more liable to develop complications as Pericarditis, Pleurisy or Pneumonia which necessitate hospitalization and intensive daily dialysis (Druke et al., 1980).

Complications as renal osteodystrophy and Peripheral neuritis are much more common with infrequent dialysis and improve with increased frequency and adequate

dialysis (Caccia et al., 1977).

Inadequate dialysis is probably responsible for the increased morbidity and mortality among Egyptian dialysis patients (El-Said W., 1991).

AIM OF WORK

Aim of Work:

The aim of this work is to compare patients of chronic renal failure who are dialyzed twice weekly (6 hours each) with those who are dialyzed thrice weekly (4 hours each) with the same total hours of dialysis (12 hours per week).

REVIEW OF LITERATURE

DIALYSIS IN THE THIRD WORLD

Hemodialysis was (and is) still the treatment of choice for the vast majority of patients with CRF (Kramer et al., 1985).

It is clear that poor countries can not afford to put a substantial number of uremic patients on dialysis treatment (William, 1984).

According to Wing and coworkers (1983), Countries with a low gross national product can not afford a significant dialysis Program. They say that three - quarters of the world's population live in the so called third world countries.

It is also clear that the continous growth in the number of dialysis patients leads to cumulatively rising cost. (William, 1984).

In some countries, tight budgetary control has severely limited resources for dialysis equipments and or trained dialysis personnel, leading to a lack of facilities and forcing those in existence to limit the

acceptance of new patients into dialysis programmes. This has provoked often emotional reactions, which have been covered in the medical and lay Press. (William, 1984).

In some countries, strategies of twice weekly dialysis or short or even ultra-short dialysis have been adopted. These policies are obviously cost-limiting and create dialysis facilities for more patients. However, a warning should be sounded. Less frequent dialysis (e.g. twice weekly) may be acceptable for patients who still have a substantial residual kidney function but in the long-run, may endanger rehabilitation and even survival of patients without significant residual clearances (William, 1984).

A significant increase in mortality, in particular from myocardial infarction, has been reported in patients treated with short dialysis schedules (Kramer, 1981).

An excess mortality with short dialysis was noted particularly in elderly male patients (Kramer, 1981).

It seems that short dialysis increases the frequency

of death due to myocardial infarction. These "Cost-Saving" Protocols should be considered as endangering survival rates, well - being, rehabilitation and quality of life of the patients (William, 1984).

Re-use of dialyzers and blood lines is doubtless a much better cost-saving procedure, which may have additional advantages in patients who are sensitive to the so called first-use syndrome with a new cuprophan dialyzer (William, 1984).

The financial constraints in the third world countries are massive. Hemodialysis machines are expensive, the disposable kidneys cost foreign currency and must be reused repeatedly if they can be obtained, and the dialysate solutions are also difficult to pay for if you only have foreign debts and there are no foreign currency reserves (Geoffrey, 1989).

Scientists and Physician nephrologists have correctly concentrated their efforts on advancing the borders of knowledge in all aspects of renal disease.

Now the time has come for them to play a more

constructive worldwide role in planning for the nephrological services of the world as a whole.

This is not an easy task, but many of the leading nephrologists in their office have access to their governments and are respected by them, so their advice may be heeded (Geoffrey, 1989).