PATIENT-CONTROLLED ANALGESIA (PCA)

Essay Submitted for the Partial Fulfillment of the Master Degree in Anaesthesia and I.C.U.

By

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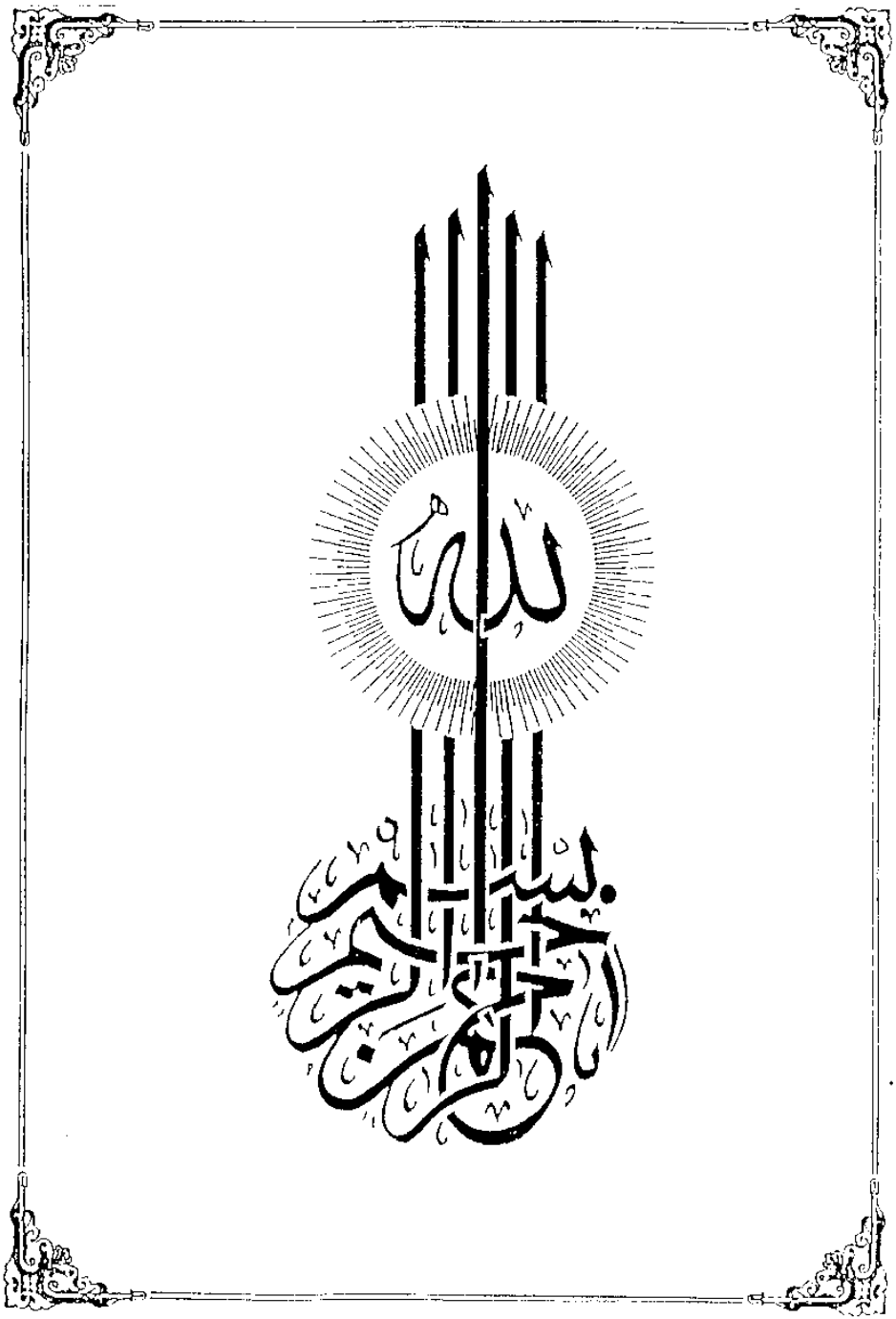

بسم الله الرحمن الرحيم

قالوا سبحانك لا علم لنا إلا ما علمتنا
إنك أنت العليم الحكيم

صدق الله العظيم

سورة البقرة الآية ٣٢

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Post-operative pain is an acute pain which starts with the surgical trauma and usually ends with tissue healing. Treatment of postoperative pain is provided for humanitarian reasons and to alleviate pain induced responses such as the neuroendocrine response to surgery, autonomic reflexes with adverse effects on organ function and other undesirable results ***(Kehlet, 1988).***

During the last decade, there has been a virtual explosion in our knowledge of basic pain physiology, in the development of new analgesic drugs, and in sophisticated drug delivery systems. However, despite recent advances in surgery and anaesthesia many patients continue to experience unacceptable pain during the early postoperative period ***(Bond et al., 1991).***

The primary reasons may relate to a lack of information about analgesic drugs and misconception about their potency, duration of action, side effects and addictive potential. Many patients are prescribed dosages of analgesics that are less than half of what is actually needed to relieve their pain and patients usually have a recurrent cycle of pain and sedation ***(Bond et al., 1991).***

Another important factor may be that 95% of the literature on postoperative pain treatment has considered unimodal treatment. Total or optimal pain relief allowing

normal function can not be achieved by a single drug or method without major strain on equipment and surveillance systems or without significant side effects ***(Kehlet, 1989).***

Individualization of analgesic therapy is crucial if one hopes to improve postoperative pain relief. Patient controlled analgesia (PCA) is a system that is designed to accomodate the wide range of analgesic requirements that can be anticipated when managing acute postoperative pain ***(Ferrante, 1993).***

Physiology of pain