Hong Kong 1986

Lecent Advances in ANAESTHESIA, CRITICAL and IMMEDIATE CARE

7th Asian Australasian Congress of Anaesthesiologists

Editor: Michael Moles



Excerpta Medica Asia Pacific Congress Series No. 54

# Recent Advances in Anaesthesia, Critical and Immediate Care

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#### This book is dedicated to

#### CYRIL CONWAY

Professor of Anaesthesia, Westminster Hospital Medical School, London, England;

courageous and selfless innovator, teacher, counsellor and friend

whose untimely illness and death have prevented him from contributing in person to the Seminar on which this book is based but whose work lives on in the science and practice of anaesthesia throughout the world.

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# Foreword

The momentum of research and development in clinical practice continues unabated in anaesthesia and its sister specialties of immediate and critical care, but at the same time the complement of information on the state of the art approaches critical mass, a point at which it becomes difficult to contain or harness.

The Recent Advances Seminar, serving as an overture to the 7th Asian Australasian Congress in Hong Kong in September 1986, therefore has as its first objective the distillation, from the background mass of information, of the key notes of the state of the art, in order to establish points of departure and to identify some of the potential 'new directions' which are the theme of the Congress itself.

This volume is an anthology of the invited presentations given in the seminar with texts given in full, inclusive of references. Since the papers themselves are actually presented in two series of simultaneous sessions, the book enables both delegates and other readers to have an awareness of all of the presentations in the seminar.

The topics have been selected to represent not only the current leading edge within a superspecialty but also the probable predictive trends in practice in Asia.

The presenters have been selected for their authority and original contributions to their field and for their current commitment to innovation and education through research and systems development in clinical practice. Collectively, the twelve authors have contributed over 600 original communications and have published over 60 books and monographs. The terms of reference were that each author would provide a brief orientation review of the topic, then illustrate and develop a critique of current concept and practice and finally indicate his or her own view as to the new directions which might be explored. Apart from these guidelines, authors have been given freedom of style and presentation. SI units are used throughout but where a presentation originates in a country in transition or not yet adopting the units, the author's terms are used, with SI units in parentheses. Generic names have been used for drugs, again with the author's terms appended for ease of reference during presentation.

Hong Kong is a most appropriate venue for initiatives such as this, in particular by virtue of its position on the cusp between the developed and developing world. In the latter area, the crisis of imbalance between demand and resources for provision and development of specialized health care is both apparent and urgent, whereas in the developed world this crisis is either insidious or stalemated. Perhaps

necessity in the developing world, in combination with the advantage of less conditioned or vested perspectives, will generate radical and innovative approaches to this problem, thereby providing solutions which may, paradoxically, be applicable globally. The creative heritage of Asia has repeatedly evolved ingenious and inventive responses to such challenges.

This seminar will essentially be evanescent, but if it acts as a prime mover to 'new directions', symbolized by the logo on the cover,  $\uparrow R$ , a vector, which represents both direction and kinetic energy, then the beneficiaries may be not only the peoples of Asia, Australasia and the western Pacific rim, who themselves make up almost half of all mankind but, in the long run, all mankind.

For their commitment and contribution to the seminar and for their cooperation in this collaborative production I wish to express my thanks to the authors.

For their advice and support, I thank the executive of the Societies of Australia, Japan, Great Britain and America and in particular the organizing committee of the 9th World Congress of Anaesthesiologists.

A special note of appreciation goes to Drägerwerk who have most generously endorsed, encouraged and sponsored this production and to Excerpta Medica, for their expertise and organization under circumstances rather often unbecomingly hectic, for making the task of editor both easy and enjoyable.

A final word of thanks to my committee colleagues, secretaries and friends who have generously given of their advice, skills, experience and encouragement.

Michael Moles Editor

Michael ludos

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# Recent Advances Seminar Programme

Presentation Series A	Presentation Series B
Chairmen: Professor Andrew Thornton Dr Cindy Aun	Chairmen: Dr Peter Baskett Dr John Low
09:00 hrs	09:00 hrs
Al Professor Solomon Shnider Obstetric Anaesthesia	B1 Professor Ronald Miller Blood, Substitutes and Retrieval
10:00 hrs	10:00 hrs
A2 Dr Ted Bennett Neonatal Anaesthesia	B2 Dr Teik Oh Parenteral Nutrition
11:30 hrs	11:30 hrs
A3 Professor Eli Brown Management of Chronic Pain	B3 Dr Owen James Management of Polytrauma
Chairmen: Dr Michael Moles Dr Robert Wright	Chairmen: Professor Walter Nimmo Dr T.W. Lee
14:00 hrs	14:00 hrs
A4 Dr Herbert Rogove Cardiopulmonary-Cerebral Resuscitation	B4 Dr David Humphrey Anaesthesia Delivery Systems
15:00 hrs	15:00 hrs
A5 Dr Ronald Stewart Immediate Care Systems	B5 Professor Miroslav Klain Jet and High-frequency Ventilation
16:30 hrs	16:30 hrs
A6 Professor Jörg Tarnow Anaesthesia for the Cardiac Cripple	B6 Dr Jean Horton Anaesthesia for Neurosurgery



# Obstetric anaesthesia: new directions

#### S.M. SHNIDER

Department of Anesthesia, University of California San Francisco, San Francisco, California, USA

This presentation will review a few of the recent advances in obstetric anaesthesia. These include the use of:

- 1. Intraspinal narcotics alone or combined with local anaesthetics
- 2. Continuous infusion lumbar epidural anaesthesia for labour
- 3. Improved safeguards against potential obstetric anaesthesia catastrophes
- a. Prevention of aspiration pneumonitis
- b. Prevention and treatment of accidental intravascular injection of local anaesthetic
- c. Prevention of foetal asphyxia due to maternal hypotension

#### INTRASPINAL NARCOTICS IN OBSTETRICS

Following the identification of opiate receptors in the spinal cord and the clinical reports of effective analgesia by epidural and subarachnoid administration of morphine in non-obstetric patients, worldwide investigation began focusing on obstetric application of spinal narcotics. It was obvious that if intrathecal or epidural opiates provided safe analgesia for labour, this technique would offer distinct advantages over current analgesic methods. There would be no motor block, no sympathectomy and therefore no hypotension, no adverse effect on uterine contractility and if small doses were used, no foetal or neonatal effects.

#### SUBARACHNOID MORPHINE FOR LABOUR

We have reported that both 0.5 and 1.0 mg of intrathecal morphine were effective and safe in providing substantial and prolonged relief of pain during the first and second stages of labour.<sup>1</sup> Parturients did experience pain with episiotomy or forceps delivery and were given appropriate inhalation analgesia with or without local anaesthesia. The