

Preface

This Clinical Atlas of Sperm Morphology is not an erudite and scholarly monograph on the subject intended for the use of advanced research workers. Rather, it is an illustrated table guide, incorporating the basic concepts of sperm morphology, meant for beginners in the field of Andrology, technicians, postgraduate students, urologists, pathologists, gynecologists and laboratories associated with IVF and other assisted reproductive programs.

The relevant essential information about the subject of sperm morphology remains scattered in different books and articles in various scientific journals, and as such remains inaccessible to most clinicians. This treatise embodies the basic concepts of sperm morphology together with illustrative pictures to make it a comprehensive guide.

Keeping in mind the intended readership, this Atlas does not include Electron Microscopy or Trans Electron Microscopy pictures, which would be Greek and Latin to most of them.

I concede that the days of a book of single authorship are history. In the past, I have received persistent queries about various aspects of sperm morphology from the fellow clinicians, pathologists, urologists and gynecologists. These have provided the impetus for writing this book. I modestly submit that my vast experience of the last fifty two years as a practicing andrologist, semen analyst, pathologist and a research worker in the field of andrology sufficiently qualifies me to undertake the task of writing such an Atlas. Besides, there is no Atlas of Sperm morphology currently available.

Both of my sons are pathologists and from their comments and criticism I could understand the general expectations and viewpoint of pathologists.

A novel staining method using Rose Bengal and Toluidine Blue is used for the first time to illustrate the sperm morphology section. This method, invented by me, is based on the dye replacement technique. Similarly a modified Shorr's staining method is used to discriminate between the germinal and non-germinal cells. Likewise, the acrosomal lesions are dealt with in details.

How can I forget my mentors, well wishers, co-workers, teachers and guides who helped me during the development of my career? I would like to express my deepest gratitude to two enlightened women: Late Lady Dhanavanti Rama Rao and Late Mrs. Awabai Wadia (both ex-Presidents of the Family Planning Association of India and subsequently of the International Planned Parenthood Federation) for encouraging me and helping me financially from the meager resources that a NGO could have.

I sadly miss the presence of late Dr Mrs Shanta Rao PhD and late Dr Anil Seth PhD who were working in the then Institute For Research In Reproduction (ICMR) and with whom I had collaborated for more than a quarter of a century in carrying out my research work.

Late Dr GM Phadke FRCS, Ex- Hon. Director, Family Welfare Bureau (unit Family Planning Association of India) not only encouraged me in my research activities, but also had offered me a virtual carte blanche to incur financial expenses from funds that were at his disposal. With deep gratitude I pay my respects to his memories.

With heartfelt reverence I pay my respects to late Dr MC Chang who was my teacher and guide at the Worcester Foundation for Experimental Biology, Shrewsbury, Massachusetts, USA in 1963. Not only did he teach me the intricacies of reproductive physiology in laboratory animals, but also impressed on my mind the importance of being a good human being.

Dr Rune Eliasson and Dr David Mortimer have helped me by their comments and criticism from time to time.

I am deeply indebted to Dr David Mortimer, formerly Scientific Director Sydney IVF center and a member of the advisory committee of World Health Organization in the preparation of 3rd edition of *WHO Laboratory Manual for the examination of Human semen and sperm-cervical mucus interaction*, for writing a foreword to this Atlas.

Likewise I express my thanks to Dr Kamala Gopalkrishnan, formerly of the then Institute for Research in Reproduction (ICMR) and a member of the advisory committee of World Health Organization in the preparation of 3rd edition of *WHO Laboratory Manual for the examination of Human semen and sperm-cervical mucus interaction*, for meticulously going through the manuscript and making valuable suggestions

I also express my thanks to Jaypee Brothers Medical Publishers for undertaking to publish this book and bringing it out in such a beautiful form.

I must put on record that it was my elder son, Dr Avinash, without whose persistent insistence, repeated prodding and financial inputs for my research, this book would not have seen the light of the day.

Mumbai
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