ANAESTHESIA, PAIN & INTENSIVE CARE

A Quarterly, International Journal of Anesthesiology, Pain Management, Intensive Care & Resuscitation

APICARE is an official publication of PSA (Pakistan Society of Anesthesiologists), STSP (Society for Treatment & Study of Pain) and PARES (Pakistan Resuscitation Society)

Vol. 18 No. 3 **July - September 2014**

Patron:
Brig. M. Salim. SI(M)
Professor of Anesthesiology
President STSP
brigsaleem@dsl.net.pk

Editor-in-Chief:
Tariq Hayat Khan
Consultant Anesthesiologist
& Pain Specialist
Vice President STSP
apicare@yahoo.com

Editors:
Fauzia Anis Khan
Senior Editor
Professor of Anesthesiology,
Aga Khan University, Karachi (Pakistan)
fauzia.khan@aku.edu

Sukhminder Jit Singh Bajwa
Associate Professor, Department of Anesthesiology and Intensive Care Medicine, Gian Sagar Medical College & Hospital, Patiala, Punjab, (India)
sukhminderbajwa@gmail.com

Associate Editors:
AKM Akhtruzzaman (Bangladesh)
akhtaruzzaman.akm@gmail.com

Fares Chedid
Consultant Neonatologist
Tawam Hospital, Al Ain,
Abu Dhabi (UAE)
fareschedid@hotmail.com

Zahid Akhtar Rao
Associate Prof. of Anaesthesia,
Bahria Univ. Medical & Dental College, Karachi (Pakistan)
zahidrao57@gmail.com

Assistant Editors:

Ashish Kulshrestha (India)
kulshi_20@rediffmail.com

Logan Danielson (USA)
logandanielson@gmail.com

Pranav Bansal (India)
drpranav_bansal@yahoo.com

Richa Saroa (India)
richajayant@rediffmail.com

Faisal Jafar (UK)
faisaljafar@yahoo.com

Rehan Masroor
docrehan@gmail.com

Statistician
Irum Abid

Editorial Board:
Aliya Khan (Pakistan)
Arshad Taqi (Pakistan)
Ashish Sinhas (USA)
Dario Galante (Italy)
Fazal Hameed (Pakistan)
Gauhar Afshan (Pakistan)
Hideaki Tsuchida (Japan)
Joseph D. Tobias (USA)
Luiz Eduardo Imbelloni (Brazil)
Rashed A. Hasan (USA)
Saeid Safari (Iran)
Shahab Naqvi (Pakistan)
S. K. Malhotra (India)
Shiv Kumar Singh (UK)

'Anaesthesia, Pain & Intensive Care' is indexed by PakMediNet, Medlip. Index Medicus (EMR), EBSCO, Index Copernicus, Embase, EMCare, UDL (Malaysia), DOAJ, Web Mèdica Acreditada Quality Program (WMA), WMA Google Search.

Listed with: National Library of Medicine Catalogue NLM ID: 101313795 [Serial]; HINARI portal.

Registered by Pakistan Medical & Dental Council (PM&DC).
Recognized by Higher Education Commission (HEC)
Permission granted by District Magistrate Islamabad for publication.

General Information: The journal is published on quarterly basis, in the months of March, June, September and December every year. Please direct inquiries regarding subscriptions, single copies and back issues, changes of addresses, and other correspondence to the Publications Office. Advertising inquiries should also be sent to the same address.
See us at FACE BOOK, Twitter, Linked in and Medpedia
All articles represent the opinions of the authors and do not reflect official policy of the journal.

This work is licensed under a
Creative Commons Attribution-NonCommercial 3.0 Unported License.

Subscription Rates: The rates for a one-year subscription of the Journal are Pak Rupees 1000 for subscribers in Pakistan, Pak Rupees 2000 for institutions in Pakistan, Pak Rupees 2000 for subscribers from SAARC countries and Pak Rupees 4000 from elsewhere.

Cover Picture: Local Anesthetics

Regional Office (Pakistan): Dept of Anaesthesia and Pain Management, AKUH, Karachi.
Ph: +92-21-34864631/4331

APICARE HQ:
60-A, Nazim-ud-Din Road, F-8/4, Islamabad (Pakistan)
E-mail: apicare@yahoo.com, apicjournal@gmail.com
www.apicareonline.com Ph: +966 50 365 3343

Published by: Dr. Tariq Hayat Khan

PAKISTAN SOCIETY OF ANAESTHESIOLOGISTS: CENTRAL CABNIT 2013-2014

Patron	Prof. S. Tipu Sultan
President	Prof. Shahida Khawaja
President Elect	Maj. Gen. Shahab Naqvi
President Immediate Past	Prof. Saeeda Haider
Vice Presidents	
- Islamabad	Prof. Iqbal Memon
- Sindh	Dr. Jan Muhammad
- Baluchistan	Prof. Faiz Tareen
- Khyber Pakhtunkhwa	Dr. Fayyaz Qureshi
General Secretary	Dr. Nurul Haque
Treasurer	Dr. Rehana Yasin
Information Secretary	Dr. M. Kashif Iqbal
Members Executive Committee	
- Islamabad	Brig. M. Salim
	Brig. Naveed Masood
- Punjab	Dr. Arshad Taqi
	Prof. Rana Altaf
- Sindh	Dr. Akhter Aziz Khan
	Dr. Gauhar Afshan
- Baluchistan	Dr. Amjad Ali
	Dr. Abdul Malik
- Khyber Pakhtunkhwa	

PAKISTAN SOCIETY OF ANAESTHESIOLOGISTS: KARACHI CABNIT 2013-2014

Patron	Prof. S. Tipu Sultan
President	Dr. Zia Akhtar
President Elect	Prof. Sadqa Aftab
Vice President	Dr. Samina Ismail
Gen. Secretary	Dr. Zahid Akhtar Rao
Joint Secretary	Dr. Rahim Memon
Treasurer	Dr. Hamid Ali

Executive Members

1. Dr. A. Waheed Khan
2. Dr. A. Aziz Khan
3. Prof. Fauzia Anis Khan
4. Prof. Saeeda Haider
5. Prof. Younis Khatri
6. Dr. Salamat Kamal
7. Aftab Imtiaz
8. Dr. Nur ul Haq
9. Dr. Shahid Amin
10. Dr. Rehana Yasin
11. Dr. Gauhar Afshan
12. Dr. Nighat Abbas
13. Dr. Roohina Nausheen Baloch
14. Madiha Hashmi
15. Safia Zafar Sidiiqui
16. Dr. Aliya Ahmed
17. Dr. Najma Saiyed
18. Dr. Amin Khuwaja
19. Dr. Ameem Anwar
20. Dr. Shabbir Jummani
21. Dr. Nabila Rafiq
22. Dr. Muhammad Riaz
23. Dr. Muhammad Hamid
24. Dr. M. Kashif Iqbal
25. Dr. Shemila Abbasi
26. Dr. Junaid Ansari

PAKISTAN SOCIETY OF ANAESTHESIOLOGISTS: LAHORE CABNIT 2013-2014

Patron	Prof. Attiya Sakhi
President	Prof. Khalid Bashir
Organizing Secretary	Dr. Jodat Saleem
Vice President	Prof. Khalid Siddiqui
	Dr. Leena Aziz
General Secretary	Dr. Iftikhar Ali Awan
Finance Secretary	Dr. Mudassar Aslam
Joint Secretary	Dr. Ali Sabtain Haider
Scientific Committee	Dr. Arshad Taqi
	Dr. Khawer Ali
	Dr. Jodat Saleem
	Dr. Liaqat Ali
	Dr. Farooq Atique
	Dr. Khalid Siddiqui

Executive Committee

Dr. Taifurul Islam
Dr. Abdul Qayyum
DR. Syed Millat Hussain
Dr. Waseem Ismat
Dr. Zia Haider
Dr. Sardar Ali

Co-ordinator

Dr. M. Younas
Dr. Asiya Taqi
Dr. Abrar Shafique
Dr. Almas Iqbal
Dr. Khalid Buland
Dr. Ansar Ali

PAKISTAN SOCIETY OF ANAESTHESIOLOGISTS: OTHER BRANCHES

- PSA Multan
- PSA RWP/Islamabad
- PSA Quetta
- PSA Peshawar
- PSA Hyderabad
- PSA Nawabshah

Reviewers

Prof Qamar ul Hoda
Dept of Anesthesiology. AKUH, Karachi

Mehwish Hussain
Senior Lecturer of Biostatistics
Dow University of Health Sciences Karachi

Professor Fauzia Anis Khan
Dept of Anesthesiology. AKUH, Karachi

Dr. Sukhminder Jeet Singh Bajwa
Associate Professor, Department of Anesthesiology and Intensive Care Medicine, Gian Sagar Medical College & Hospital, Patiala, Punjab, (India)

Dr. Abdul Rahim Memon
Assistant Professor
Jinnah Postgraduate Medical Centre, Karachi

Dr. Hameed Ullah
Associate professor
Aga Khan university, Karachi

Dr. **Naeem Zubair**
Consultant Anaesthetist
Lakeridge Health Corporation Hospitals, Dept of Anaesthesia and Pain Medicine, Ontario, Canada

Dr. Logan Danielson
Children's Hospital of Michigan, Detroit, MI
Research Assistant for Michigan Pediatric Surgical Associates, Detroit, MI (USA)

Dr. Rashed A. Hasan, MD, FAAP. (USA)
Chief, Pediatric Critical Care Services
Mercy Children's Hospital
Professor of Clinical Pediatrics
University of Toledo
Toledo, OH, USA

Dr. Sonia Saini, MD
Staff Anesthesiologist, Anesthesiology Institute, Cleveland Clinic at Cleveland Clinic, USA

Dr. Afreen Siddiqui
Clinical Assistant Professor of Surgery, Department of Surgery, Alpert Medical School, Brown University,
Providence, Rhode Island 02912, USA

Dr. Dawood Nasir MD
Associate Professor, University of Texas Southwestern Medical Center, Dallas,Tx (USA)
Department of Anesthesiology & Pain management
Director Acute Pain & Regional Anesthesia, Parkland Hospital, Dallas, Tx.
President Dallas County Anesthesiology Society
5323 Harry Hines Blvd, Dallas, USA

Dr. Zulfiqar Ahmed, M.B.,B.S. F.A.A.P.
Staff Anesthesiologist
Children's Hospital of Michigan
Director of Research
Assistant Professor of Anesthesiology
Wayne State University
3901 Beaubien
Detroit, MI 48201-2196

Dr. Mamoona Shaikh Ahmad
5419 N Lovington Hwy Suite 21
Hobbs, NM 88240 (USA)

Dr. Shireen Ahmad, M.D.
Professor of Anesthesiology
Associate Chair for Faculty Development
Vice-President Medical Faculty Council
Northwestern Univ. Feinberg School of Medicine.
Ph: 312-472-0550; Fax:312-472-3590
Adm. assistant: 312-472-3585

Dr. Zeest Khan, MD
Mills-Peninsula Health Services
Burlingame, California, USA

Dr. M. Saif Siddiqui, MD
Associate Professor
Director, Radiology Sedation and Anesthesia
University of Arkansas for Medical Sciences and Arkansas Children's Hospital
Division of Pediatric Anesthesiology and Pain Medicine, 1 Children's Way, Slot 203
Little Rock, AR 72202-3591

Dr. Allegri Md
Medical Doctor presso Pain Therapy Service Fondazione IRCCS Policlinico San Matteo, Pavia, Italy

Dr. Dario Galante, MD. (Italy)
Home Address: Viale Ofanto 221, 7121 Foggia, Italy

Dr.Tanweer Aziz
Consultant Anesthetist.
King Fahad National Guard Hospital, Riyadh, K.S.A

Dr. Nauman Ahmad
Senior Consultant Anesthesia
King Khaled Eye Specialist Hospital Riyadh.
Juan Perez-Cajaraville
Director Unidad del Dolor, Clinica Universidad de Navarra, Pamplona Area, Spain

Dr. Santiago M Herrero
Dr. Herrero-Varon's Blog. ENG/SPAIN.
Editor in Chief "Pearls on Intensive Care Medicine" http://infouci.org
ICU Senior Consultant
Hospital General de Gijón (Hospital de Cabuenes)
SESPA, Gobern of Principality of Asturias
Calle Los Prados 395
33203 Gijón,
Asturias, Spain

Dr. S K Malhotra, MD
Department of Anaesthesia and Intensive Care,
Postgraduate Institute of Medical Education and Research (PGIMER)
Chandigarh
INDIA 160012

Prof. Avnish Bharadwaj
Professor of Anaesthesiology
SMS Medical College, Jaipur (India)

Dr. Sandeep Kumar Kar M.D.
SSKM Hospital IPGMER,
Kolkata, India

Dr. Subhash Chandra Sharma
Nepalese Association of Clinical Psychologists,
Journal of Kathmandu Medical College,
Kathmandu Medical College

Dr. Rubina I Ahmad
Lead Consultant Chronic Pain Medicine
Department of Anaesthesia, Level 3
North Devon District Hospital NHS Trust
Raleigh Park
Barnstaple, Devon
EX31 4JB

Dr. Najam Saqib
Consultant Anaesthetist
Doncaster & Bassetlaw Hospitals NHS Foundation Trust
Nottinghamshire S81 0BD (UK)

Dr Anwar ul Huda, MBBS, MCPS, MCR, FCPS
House Number. R-104,
Block. 7D1, North Karachi, Karachi
Pakistan, PO box 75850

Dr. David Faraoni
Anesthesiologist Queen Fabiola Children's University Hospital
Avenue JJ Crocq, 15
1020 Brussels (Belgium)

Dr. Anuja Abayadeera
Senior Lecturer in Anaesthesiology at University of Colombo, Sri Lanka

Dr. Mpoki Ulisubisya
Sri Lanka

Dr. Menekşe Okşar
Assist professor of anesthesiology,
Ankara University

CONTENTS

EDITORIAL VIEWS

Firearm injuries to the maxillofacial region 227

Adnan Aslam

Arterial blood evaluation: from the old Allen test to the new technologies 229

Dario Galante, Matteo Melchionda

ORIGINAL ARTICLES

Prevalence and antibiotic susceptibility of methicillin resistant Staphylococcus aureus and Acinetobacter baumannii in clinical samples from intensive care unit patients in a tertiary care hospital at Peshawar (Pakistan) 231

Riaz Ahmed Khan,Farah Ashraf Khan, Muhammad Iqbal, Homera Nigar

Oral midazolam plus ketamine compared to midazolam only to reduce agitation in children undergoing urological surgery after sevoflurane anesthesia 237

Haxhire Gani, Vjollca Beqiri, Pirro Prifti, Majlinda Naco, Rudin Domi, Orjana Janushaj, Bilbil Hoxha,

The role of pre-operative investigations in relatively healthy general surgical patients- a retrospective study 241

Alka Chandra, Vijay Thakur, Nikhil BhasinDheeraj Gupta

Perfusion index as an objective alternative to the Allen test, with flow quantification and medico legal documentation 245

Roshdi R. Al-metwalli

Comparison of analgesic effect of femoral nerve block and continuous intravenous infusion pump, after anterior cruciate ligament reconstruction in first postoperativeday 250

Pouran Hajian, Navid Haddadzadegan, Mahshid Nikouseresht. Mohamad-Ali Seif-Rabiee, Alireza Yavarikia

Comparison of the stylet and the gum elastic bougie in tracheal intubation in a simulated difficult airway 256

Riaz Ahmed Khan, Farah Ashraf Khan, Muhammad Azam

Comparative study of thoracic epidural fentanyl with sufentanil for postoperative pain relief in thoracic surgery 260

Sumit Bhargava, Aparna Tamaskar, Nupur Chakravarty, Seema Shende, Ramchandra Vinayak Shidhaye

Risk factors, incidence and outcome of candidemia in a Turkish intensive care unit: a five-year retrospective cohort study 265

Nur Yapar, Mert Akan, Vildan Avkan-Oguz, Cem M. Ergon, Munir Hancer, Mine Doluca

CASE REPORTS

Perioperative care of an adolescent with Charcot-Marie-Tooth disease with placement of a caudal epidural catheter as an adjunct to general anesthesia 272

Omar Alkhatib, Joseph D. Tobias

Fat embolism syndrome due to bilateral intramedullary nailing of tibia 277

Abhijit S. Nair, Rahul Amte, Lavanya Ram, T. Dasaradha Rama Reddy

Thoracic paravertebral block for breast surgery in a patient with ischemic heart disease 280

Sneha Nikam, Pallavi Marghade, Naresh Paliwal, Sunil Lawhale

Anaphylaxis: A life threatening but treatable condition 282

Shahid Adeel, Mohammad Ismail, Mansour Abdelfattah, Mohamed ElbaharAsad Jawad

Difficult airway in a child with retropharyngeal abscess 285

Kalpana Rajendra Kulkarni, Basant Rambharose Chaurasia

CONTENTS

Unusual presentation of chronic myeloid leukemia – an emphasis on adequate preanesthesia work-up 289

Roopa Sachidananda, Vikram K Bhat, Santosh, Rohini V Bhat Pai

Anesthetic management for super-super morbidly obese patient 291

Mesut Erbas, Huseyin Toman, Hasan Ali Kiraz, Tuncer Simsek, M Kasim Arik, Berna Uyan, Hasan Sahin

Massive surgical emphysema during laparoscopic surgery 294

Venkatesh Nutangi P. M. Velankar, Sandeep Choudhary

Anesthetic management for removal of a huge intra-abdominal tumor: A case report 296

Aparna Tamaskar, Sumit Bhargava, Sanjay P. Dave, Shidhaye Ramchandra Vinayak

Awake rigid bronchoscopy for post intubation tracheal stenosis 299

Ashwini H. Ramaswamy, Madhuri S. Kurdi, Safiya I. Shaikh, Radhika S. Deva, Syed Uwais Raza

REVIEW ARTICLE

Thyroid disorders during pregnancy and anesthetic considerations 302

Sushma K Sannaboraiah, Ashwini Halebid Ramaswamy, Safiya Shaikh

FUTURE PERSPECTIVE

Future local anesthetics- Neurotoxins? 308

Prasanna Vadhanan, Adhinarayanan S

CORRESPONDENCE

Intramyometrial terlipressin in atonic postpartum hemorrhage: A uterine salvage decision 313

Sukhen Samanta, Sujay Samanta, Kajal Jain, Daipayan Chatterjee

'Lignocaine stylet': Tips for difficult arterial cannulation with minimum arterial spasm 314

Sukhen Samanta, Sujay Samanta, Kapi Dev Soni, Richa Aggarwal

Central venous catheter insertion site infection leading to subcutaneous emphysema 315

Mullick Parul, Varshney Gaurav, Kumar Ajay, Prakash Smita

Counselling is important in treatment of deliberate self-harm. 316

Chepsy C Philip

Endotracheal tube cuff leak: yet another unusual cause!' 317

Anand K. Lakesh, Kapoor Dheeraj, Singh Anjali

Pulmonary calcification or…? 318

Joseph Santiapillai, Santhana Kannan, Shu Li Tan

CLINIQUIZ

Local anesthetics: pharmacology & Clinical application 320

Kirti Ahuja, Jagdish Dureja, Pranav Bansal, Puja Singal

CALENDAR OF EVENTS 322

TRENDS & TECHNOLOGY 323

CLINIPICS 324

CONGENITAL ABNORMALITIES

BOOK REVIEW

Operation Room Assistant Manual 312

Zunaira Abdul Ghaffar

'My Most Memorable Experience'
Proud to be an anaesthetist 259

Mortada Jubara

My most unforgettable patient
History, history, history 276

Sarvjeet Kaur

Instructions for authors

The 'APICARE' agrees to accept manuscripts prepared in accordance with the 'Uniform Requirement for Submission of Manuscripts Submitted to Biomedical Journals' published in the British Medical Joumal 1991 ;302:334N1, All material submitted for publication should be sent exclusively to the 'APICARE'.

ETHICAL CONSIDERATIONS: If tables, illustrations or photographs, which have been already published, are included, a letter of permission for their re-publication should be obtained from author(s) as well as the editor of the journal where it was previously printed. Permission to reproduce photographs of patients whose identity is not disguised should be sent with the manuscript otherwise the eyes will be blackened out.

MATERIAL FOR PUBLICATION: The material submitted for publication may be in the form of an Original Research, a Review Article, a Case Report, Recent Advances, New Techniques, Debates, Book Review/CDs on Clinical/Medical Education, or a Letter to the Editor. Original articles should normally report original research of relevance to clinical anaesthesiology, pain management, intensive care or resuscitation, and may appear either as a paper or as short communications. The paper should be of about 2000 words, with no more than six tables or illustrations, short communications should be of about 600 words, with one table or illustration and no more than five references. Clinical case reports and brief or negative research findings may appear in this section. Review article should consist of structured overview of some relatively narrow topic providing background, recent development with reference to original literature.

Letters should normally not exceed 400 words, have no more than 10 references, and be signed by all of the authors. An article based on dissertation submitted as part of the requirement for a fellowship of the postgraduate degree awarding medical institutions can be sent for publication after the Research and Training Monitoring Cell (RTMC) have approved it. Editorials are written by invitation.

Each manuscript should include a title page (containing e-mail address, fax and phone numbers of the corresponding author), abstract, text, acknowledgments, references, tables, and legends.

Each component should begin on a new page, in the following sequence: title page: abstract and keywords: text; acknowledgments; references; tables (each table, complete with title and footnotes, on a separate page); and legends for illustrations.

The manuscript should be typed in double spacing on 8 ½" x 11" (21.5cm x 28.0cm) white bond paper with one-inch (2.5cm) margin on both sides. It should not exceed 20 pages, excluding tables and references. There should be no more than 40 references in an Original Article, and no more than 100 in a Review Article.

TABLES AND ILLUSTRATIONS: Tables and illustrations should be submitted separately, and legends to illustrations should be typed on a separate sheet. Each table should have a title and be typed in double space without horizontal and vertical lines on an 8 ½" x 11" (21.5 x 28.0 cm) paper. Tables should be numbered consecutively with Roman numerals in the order they are mentioned in the text. Page number should be in the upper right corner, if abbreviations are used, they should be explained in footnotes. When graphs, scatter grams, or histograms are submitted, the numerical data on which they are based should be supplied.

S.I. UNITS: System Intemational (Sl) Unit measurements should be used. All drugs must be mentioned in generic form. The commercial name may, however, be mentioned with in brackets.

FIGURES AND PHOTOGRAPHS: Should be sent only when data cannot be expressed in any other form. These must be unmounted, glossy prints in sharp focus, 5" x 7", (12.7 x 17.3 cm) in size. These may be in black and white or in colour. Negatives, transparencies, and X-ray films should not be submitted. The number of the figure, the name of the author(s) should be printed on the back of each figure/photograph, and must be cited in the text in consecutive order. Legends must be typed on a separate sheet of paper. Legends for photographs should indicate the magnification, internal scale and the method of staining. Photographs in published articles will not be returned.

REFERENCES: Should be numbered in the order in which they are cited in the text. At the end of the article, the full list of references should give the names and initials of all authors (unless there are more than six when only the first six should be given followed by et al). The authors' names are followed by the title of the article; the title of the journal abbreviated according to the style of the Index Medicus. e.g.: Hall, RR. The heading of tissues by CO_2 laser. Br J. Surg 1971; 58:222-225. Reference to books should give the names of editors, place of publication, publisher, and year.

PEER REVIEW: Every paper will be reviewed by a member of the editorial committee, and one or more external reviewers. Statistical analysis wail be examined by a statistician.

ABSTRACT: Abstracts of onginal article should be prepared with a structured format. The elements addressed could include objectives, design, setting, patients or other participants, interventions, and outcome measures, the results, and conclusions. Please label each section clearly with the appropriate subheading. Review article, Case report and other require a short, unstructured abstract Commentaries do not require abstract. A list of key words should be given consisting of MeSH terms.

INTRODUCTION: This should include the purpose of the article. The rationale for the study or observation should be summarised; only strictly pertinent references should be cited; the subject should not be extensively reviewed Data or conclusions from the work being reported should not be presented.

METHODOLOGY: The selection of the observational or experimental subjects (patients or experimental animals, including controls) should be described clearly in the methods and the apparatus used should be identified (with the manufacturers name and address in parentheses), and procedures described in sufficient detail to allow other workers to reproduce the results References to established methods should be given, including statistical methods; references and brief descriptions for methods that have been published but are not wall known should be provided; new or substantially modified methods should be described, giving reasons for using them, and evaluating their limitations. All drugs and chemicals used should be identified precisely, including generic name(s), dose(s), and route(s) of administration.

RESULTS: These should be presented in a logical sequence in the text, tables, and illustrations. All the data in the tables or illustrations should not be repeated in the text; only important observations should be emphasized or summarised.

DISCUSSION: The authors comments on the results, supported with contemporary references, including arguments and analysis of identical work done by other workers. A summary is not required. Brief acknowledgment may be made at the end.

ONLINE SUBMISSION: The manuscripts maybe submitted online via our website www.apicareonline.com or sent as e-mail attachments to the head office or one of the regional offices. Pictures must be sent separately as JPEG or in TIFF format. Submission of scanned copies of the tables, diagrams, Graphs, and Pictures is not acceptable. Model submission letter maybe downloaded from the website, duly filled in, signed by all of the authors and must be submitted along with the manuscript.