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Indian Journal of Medical Research A Journey from Inception to Digital Age

Dr. Rajni Kant

Indian Journal of Medical Research (IJMR) is one of the oldest known bio-medical Journals in India and is uninterruptedly being brought out since 1913 to till date. Though there have been many ups and downs with changes in its editorial, contents, production and periodicity during its nearly 100 year journey, but it has always maintained a high content quality, punctuality and global standard. This is indexed by all the major global indexing and alerting services and currently ranks among the top bio-medical journals in India. To keep pace with the changing time and technologies of the modern digital age it was thought opportune to digitize all the previous issues of the IJMR since inception so as to make a searchable interface with the availability of all full text articles on the net. An attempt was also made to track the road traveled by the IJMR to reach this stage as also the progress made from its beginning in the year in 1913.

Biomedical Research in Pre-independent India and Setting up of Research Institutions including IRFA

In early part of the 20th century, India was crippled with many communicable and infectious diseases of great socio-economic importance like malaria, filariasis, kala-azar, plague, leprosy and tuberculosis affecting larger section of the society with no systematic control and prevention measures in place. The seeds of medical research, however, were sown with the opening of Indian Medical Services (IMS) in 1896 and the landmark discovery of Major General Sir Ronald Ross in elucidating the role of female anopheles mosquitoes in transmission of malaria, while working in Hyderabad in 1897, that followed with the commencement of systematic investigations of the problems of tropical and other diseases with the establishment of many research laboratories and institutions of excellence in different parts of the country such as Central Research Institute (CRI), Kasauli, the Bombay Bacteriological Laboratory (now Haffkine Institute) at Parel, Mumbai, the King Institute at Guindy for Madras Presidency and the Pasteur Institutes at Kasauli, Coonoor, Shillong and Rangoon.

In 1911, the Government of India constituted the Indian Research Fund Association (IRFA), which later came to known as Indian Council of Medical Research (ICMR) in 1949 with the objective of undertaking research and propagation of knowledge and experimental measures generally in connection with the causation, mode of spread and prevention of communicable diseases as well as to support the Medical Research Department of Government of India created to do research in tropical diseases and providing grants to specific enquiries.

Genesis of Indian Journal of Medical Research

The Association (IRFA) in the second meeting of its Governing body held in Delhi

on 12th March, 1913, deliberated on a note by the then Sanitary Commissioner of the Government of India containing the proposal for the starting of a journal on Indian research and accorded its sanction. The journal was intended to absorb the publication known as 'Paludism' and several monographs known as Scientific Memoirs. The Central Research Institute, Kasauli opened in 1906 under the Directorship of Lt Col Sir David Semple, provided accommodation for the library and central stores of the IRFA and for the office of the *Indian Journal of Medical Research* and the Director of the Institute continued to be the Editor of the IJMR for quite some time. One specialized publication assistant used to assist in the editing of the IJMR. The first issue of the IJMR was brought out (vol1, No1) in July 1913 (17 articles) and published by Thacker, Spink & Co., Calcutta with a nominal cost of Rs.2 per issue. It is heartening to note that in Vol.1 issue 3 (1914) Nobel Laureate Sir R. Ross published his paper titled '*The Spleen rate in London School Children*' (Ross R, Christophers SR, Perry EL. *IJMR* 1914; 1(3): 385-87). He was for many years a member of the Advisory Board of the Indian Research Fund Association. The Ross Field Experimental Station for Malaria at Karnal, Punjab was instituted in 1926 by IRFA to further researches in Malariology. Later on his demise on 16th September, 1932, the resolutions of sorrow were passed at the meeting of Scientific Advisory Board and Governing Body of the IRFA in September 1932 and the Obituary of Legendry Sir Ronald Ross was published in the January 1933 issue of the IJMR¹.

While starting IJMR in 1913 Sir Harcourt Butler wrote in his Foreword

'The time has come for the IRFA to have its own official organ. The IJMR should be worthy record of what is being done in India for the advance of sanitary science in the widest sense of the term. Its pages will be open to all, official and non-official alike for papers on all subjects of research directly or indirectly connected with medical and sanitary science. It will take the place of 'Paludism' and the 'Scientific Memoirs'. Research work is developing rapidly in India and I earnestly appeal to all who are interested in it to support this journal and enable it to hold high place among the medical scientific journals of the world.'

Sir HARCOURT BUTLER, July 1913

Preamble and Need

There was no periodical devoted entirely to the publication of research work connected with sanitation and the prevention of disease in India. Most of the papers, therefore, on this very wide range of subjects, either remained more or less buried in the files of Government offices, found their way in to general medical or surgical periodicals or scattered over a variety of very specialized journals in England and Europe. It was felt that a periodical, which would collect the best of all this work and publish it in a readily accessible form would be eminently desirable and meet a real need. It is to meet this objective that '*The Indian Journal of Medical Research*' was started.

It was decided that the IJMR will be the official publication of IRFA, the objectives of which were "the

prosecution and assistance of research, the dissemination of knowledge, and experimental measures generally in connection with the causation, mode of spread and prevention of communicable diseases". It was also felt that its scope will be made as wide as possible without encroaching on the domain of the general medical and surgical periodicals. With the exception of such papers as usually find their place in these, the journal will deal with every branch of research directly or indirectly connected with medical and sanitary science, including such subjects as hygiene, sanitary engineering, sanitary laws, statistics, bacteriology, parasitology, entomology, etc. Original papers on all these subjects will be published and short notes, which are either of interest in themselves or of importance because of ideas or suggestions they may give to other workers, will also find place in the journal. Reviews of, and extracts from, contemporary papers or books will not be published as this work is already done by various Bulletins and similar publications but resumes, bringing upto date all the available information regarding particular diseases and summaries of official reports to government, when these will be of special interest, will be included. Though the IJMR was the official publication of IRFA, suitable original papers were also welcomed from any worker, official or non-official alike. The price of the Journal was fixed at a very low rate so that it may have a wide circulation, and reach everyone interested. In this way it was hoped that it may have a high educational value and be a stimulus to research to an even wider field of workers that exists at that time.

History of IJMR

The history of IJMR goes hand in hand with the history of malaria research in India. It is widely known that malaria was rampant in pre-independent India and to deal with the problems of malaria, Government of India in August 1909 decided to establish Central Malaria Bureau at Kasauli. In 1910 Captain S. R. Christophers became the first Director of the Bureau which became a centre of training and research in malariology and coordinated malaria problem throughout India. To disseminate the research results on malaria and other associated areas, the aforesaid Committee started in 1910, a half yearly periodical called Paludism, as its transactions. This periodical, most probably the first periodical on malaria in the world, was published from Shimla and contained original contributions devoted to morphology, anatomy and physiology of the mosquitoes. It was edited by Major S P James and later jointly by SP James and SR Christophers. Five issues of the periodical were published till September 1912, when the periodical became the official organ of the Indian Research Fund Association and subsequently merged with the newly started Indian Journal of Medical Research. Scientific Memoirs by Officers of the Medical and Sanitary Departments of the Government of India, being published since 1885 [Vol 1(1885) to 12 (1902)] also got merged with the Indian Journal of Medical Research in 1913 itself resulting in the change of the scope of the journal^{2,3}.

Periodicity and Current Status of IJMR

The Indian Journal of Medical Research is ranked as one of the oldest known medical journals not only in India, but probably in Asia and very soon it is going to complete 100 years of its uninterrupted existence and continuity. From 1913 to 1957 IJMR was published on quarterly basis with one volume and 4 issues in a year except for a brief period of 1940 and 1943-1946 when it was published half yearly and only 2 issues were brought out every year owing to reduction in number of papers submitted for publications during the period of World War (2 numbers per volumes *i.e.* in May and October). From 1958 to 1963 IJMR was published on bimonthly basis and 6 issues were brought out in a year. From 1964 onwards IJMR became monthly and is still continuing to be brought out every month. However, from 1977 onwards IJMR is brought out in

papers and book reviews. Recently Editorials and Commentaries have also been included and Research letters are also published as correspondence after peer review. Occasionally, special issues/sections and supplements are also brought out in addition to the regular issues.

Supplements/ Special Issues/Special Sections

A total of 18 supplements on different topics ranging from Toxaemias, Hepatitis and Kyasanur Forest Disease (KFD) to 100 years of Malaria Research and Streptococcal Research to HPV & Cervical Cancer were brought out during the period between 1954 to 2005. Complete list of supplements is given in Table II. IJMR has also brought out 21 special issues on important topics like Cholera, Dengue, Chikungunya, Malaria, and Ageing to Tuberculosis Research and from Leishmaniasis to Metal Toxicity during the period between 1964 to 2010. Special sections

Table I. IJMR and its periodicity

Years	Periodicity	Volume no.	Months	No of issues per vol.	Total issues
1913-1939	Quarterly	1-27	July, October, January, April (dual year combination)	4	108
1940	Half yearly	28	July, October	2	02
1941-1942	Quarterly	29, 30	January, April, July, October	4	08
1943-1946	Half Yearly	31-34	May, October	2	08
1947-1957	Quarterly	35-45	January, April, July, October	4	44
1958- 1963	Bimonthly	46-51	Jan, Mar, May, July, Sept, Nov	6	36
1964 – 1976	Monthly	52-64	January - December (1 volume a year)	12	156
1977-1988	Monthly	65-88	(Jan-June & July-Dec) (With 2 volumes in a Year)	6	144
1989-1993	Monthly	89-98	2 Sections Section A- Infectious Diseases (Jan, Mar May, Jul, Sep, Nov) Section B- Biomedical Research other than Infectious Diseases (Feb, Apr, Jun, Aug, Oct, Dec)	6	60
1994 – 2010	Monthly	99-130	(With 2 volumes in a year)	6	198

During 1940 & 1943-46 the journal was published half yearly due to reduction in number of articles due to world war. A total of 770 issues were brought out between 1913 to June 2011 (Vol.1 to 132). Vol 1-37 (1913-1949) published under the Authority of IRFA while Vol 38 (1950) onwards published under the Authority of ICMR

2 volumes in a year *i.e.* Jan-June and July-Dec. For a brief period between 1989 to 1993 it was bifurcated in to two sections *viz.*, Section A – Infectious Diseases and Section B – Biomedical Research other than Infectious Diseases. However, from 1994 both sections were merged again and IJMR became a single entity with 2 volumes every year at 6 monthly intervals with 12 issues per year and is continuing with this format (Table I).

The Journal is indexed and abstracted by all major global current awareness and alerting services and publishes peer reviewed quality biomedical research in the form of original research articles, review articles, short

on Maternal and Child Nutrition and Cardiovascular Disease Research were brought out in 2009 and 2010 respectively. A complete list is given in Table III.

Indian Medical Research Memoirs

More extended contributions on special subjects, however, continued to be published as special numbers of the Indian Medical Research Memoir (IMRM). IMRM - a supplementary series to IJMR was brought out during early part of the 20th century and the 1st Memoir was published in the year 1924 on the topic 'Report of the Ankylostomiasis Inquiry in Madras' by K S Mhaskar in October 1924 followed

Table II. List of supplements of IJMR

Year	Title	Vol. No.
1922	Monograph on Cercariae indicae	Vol. 10, June 1922
1954	Review on Toxaemias of Pregnancy	Vol. 42, Dec., 1954
1957	Infectious Hepatitis in Delhi (1955-56) A Critical Study	Vol. 45, Jan., 1957
1968	Kyasanur Forest Disease Virus to Small Mammals	Vol. 56, April, 1968
1968	Heart Disease - Myocardial Infarction	Vol. 56, July, 1968
1971	Glaxo Symposium on Nutrition Growth & Development	Vol. 59, June, 1971
1977	WHO/ICMR Research Unit on Genetic Control of Mosquitoes, New Delhi	Vol. 65, June, 1977
1978	National Institute of Nutrition, Hyderabad, Diamond Jubilee Number	Vol. 68, Oct., 1978
1978	Narangwal Experiment on Nutrition - Infection - Interaction	Vol. 68, Dec., 1978
1979	100 Years of Malaria Research	Vol. 70, Dec., 1979
1980	Tuberculosis Prevention Trial, Madras	Vol. 72, July, 1980
1981	Parasitic Diseases	Vol. 73, Jan., 1981
1981	Domiciliary Tuberculosis Chemotherapy	Vol. 73, April, 1981
1982	Traditional Medicine	Vol. 76, Dec., 1982
1983	Cancer Research	Vol. 78, July, 1983
1987	Scientific Studies on Bhopal Gas Victims (Pt. A)	Vol. 86, Dec., 1987
2004	Streptococcus and Streptococcal Research	Vol. 119, May, 2004
2005	24th Annual convention of IACR & International Symposium on "HPV and Cervical Cancer"	Vol. 121, Feb, 2005

Table III. List of special issues of IJMR

Year	Title	Vol. No.
1964	Seminar on Cholera	Vol. 52, Aug., 1964
1965	Outbreak of Dengue & Chikungunya Virus in South India	Vol. 53, Aug., 1965
1982	Communicable Diseases	Vol. 76, July, 1982
1984	Malaria Research	Vol. 80, July, 1984
1988	Medicinal Plants	Vol. 87, April, 1988
1995	85 Year of ICMR - Nutrition Research	Vol. 102, Nov., 1995
1996	Emerging & Reemerging Infections	Vol. 103, Jan., 1996
1996	Diarrhoeal Diseases	Vol. 104, July, 1996
1997	Commemorative Issue - Centenary of the Discovery of Malaria Transmission	Vol. 106, Aug., 1997
1997	Ageing in India	Vol. 106, Oct., 1997
1998	Commemorative Issue: 80 Years of National Institute of Nutrition (ICMR) Hyderabad (1918-1998)	Vol. 108, Nov., 1998
2004	Tuberculosis Research	Vol. 120, Oct., 2004
2005	HIV/AIDS	Vol. 121, Apr., 2005
2006	Leishmaniasis	Vol. 123, Mar., 2006
2007	Diabetes Research	Vol. 125, Mar., 2007
2007	Poverty & Human Development	Vol. 126, Oct., 2007
2008	Nutrition and Bone Health	Vol. 127, Mar., 2008
2008	Metal Toxicity and Health Implications	Vol. 128, Oct., 2008
2009	Human Papillomavirus	Vol. 130, Sep., 2009
2010	Sleep Medicine	Vol. 131, Feb., 2010

by 'Relationship of Rice to Beri Beri in India' by Lt Col Robert McCarrison and Roland V Norris in the same year. A total of 38 volumes on the topics like Plague, Kala-azar, Medicinal

Plants, Rabies, Filariasis, Malaria and Anopheline Mosquitoes were brought out between 1924 to 1954. A complete list is given in Table IV.

Table IV. List of Indian Medical Research Memoirs

1. Memoir No. 1. October, 1924. Report of the ankylostomiasis inquiry in Madras. K.S. Mhaskar
2. Memoir No. 2. October, 1924. The relationship of rice to beri-beri in India. Lt Col Robert McCarrison and Roland V Norris.
3. Memoir No 3. December, 1924. Provisional list and reference catalogue of the anophelini. Part I. Provisional List of Species, Part II- Descriptive Synopsis. Lt Col S R Christophers
4. Memoir No 4. February, 1926. Report of the Kala-azar Commission, India, Report No.1 (1924-25), Director Kala-azar Commission.
5. Memoir No. 5. February, 1927. The distribution of anopheline mosquitoes in India and Ceylon. Major G Covell.
6. Memoir No.6. May, 1927. A study of Indian Medicinal Plants: *Holarrhena antidysenterica* Wall. Rev. Father JF Caius and Dr KS Mhaskar
7. Memoir No.7. July, 1927. A critical review of the data recorded regarding the transmission of malaria by the different species of *Anopheles*; with notes on distribution, habits and breeding places. Major G Covell.
8. Memoir No.8. January, 1928. Preliminary enquiry in to beri-beri in Burma. Lt Col J Taylor, Maj C De, C Martin and U Thant
9. Memoir No.9. March, 1928. The incidence and spread of Cholera in India : Forecasting and control of epidemics. Sir Leonard Rogers.
10. Memoir No. 10. March, 1928. Beri-beri Colubarum. Lt Col R. McCarrison. A statistical examination of experimental data (Appendix A), ER Sundararajan & An account of the aerobic spore forming bacilli in rice (Appendix B). Lt Col T H Gloster.
11. Memoir No.11. August, 1928. Yeast and sprue. Lt Col FP Mackie and GD Chitre
12. Memoir No.12. October, 1928. The epidemiology of cholera in India. Lt Col AJH Russell and ER Sundararajan
13. Memoir No.13. June, 1929. Puzzles and fallacies in the examination of stained films in the tropics. Lt Col R Knowles, Lt Col Hugh W. Acton and BM Das Gupta
14. Memoir No. 14. February, 1930. Studies on Asiatic cholera. FD Herelle, Maj RH Malone and MN Lahiri
15. Memoir No. 15. March, 1930. An investigation in to the value of an etherized vaccine in the prophylactic treatment of rabies Part VII. The comparative immunizing value of samples carbolized vaccine and the etherized vaccines of alivisatos and hempt (original method). Lt Col. J. Cunningham and Maj. RH Malone.
16. Memoir No.16. March, 1930. A study of Indian medicinal plants II. *Gymnema sylvestre* BR. Dr KS Mhaskar and Rev. Father JF Caius, A comparative study of the dried barks of the commoner Indian species of genus *Terminalia*, Linn. Rev. Father JF Caius, Dr KS Mhaskar and Mozelle Issacs.
17. Memoir No.17. September, 1930. Studies in *Schistosoma spindale* Parts I-VI. N. Hamilton Fairley, Lt Col. FP Mackie and F Jasudasan
18. Memoir No.18. December, 1930. Studies in the parasitology of malaria. Lt Col. R Knowles and R Senior White.
19. Memoir No.19. December, 1931. Indian plant remedies used in snake-bite. KS Mhaskar and Rev. Father JF Caius
20. Memoir No.20. March, 1931. Leptospirosis in the Andamans (with an appendix on the present knowledge of leptospiral infections), Lt Col. J. Taylor and Amar Nath Goyle
21. Memoir No.21. June, 1931. Larvae of anopheline mosquitoes with full description of those of the Indian species. IM Puri
22. Memoir No.22. February, 1932. Studies in avian spirochaetosis: Parts I&II, Lt Col R Knowles, BM Das Gupta and BC Basu
23. Memoir No.23. March, 1932. The life line of the thyroid gland - A contribution to the study of goiter. Col R McCarrison and KB Madhava.
24. Memoir No. 24. June, 1932. Notes on Indian scorpions. Rev. Father JF Caius and KS Mhaskar
25. Memoir No.25. August, 1932. Report of the kala-azar Commission, India. Report II (1926-1930). Lt Col HE Shortt.
26. Memoir No.26. January, 1933. An investigation in to the value of an etherized vaccine in the prophylactic treatment of rabies. Part VIII The comparative immunizing value of carbolized, etherized vaccines tested under identical conditions of dosage and administration. Lt Col J Cunningham, Maj R H Malone and Maj AC Craighead
27. Memoir No.27. March, 1933. Haffkine's plague vaccine. Lt Col J Taylor
28. Memoir No.28. January, 1934. An investigation in to the relative immunizing value of the Kasauli and Paris strains of rabies fixed virus. Lt Col HE Shortt, Maj RH Malone, Maj AC Craighead and JP McGuire
29. Memoir No.29. May, 1937. The histopathology of malaria with special reference to the function and origin of the macrophages in defence. William H Taliaferro and H W Mulligan.
30. Memoir No.30. July, 1938. Studies on the epidemiology of filariasis in Travancore. MOT Iyengar
31. Memoir No.31. July, 1939. The present position of hemp-drug addiction in India. Brevet Col RN Chopra and Captain Gurbakhsh Singh Chopra
32. Memoir No.32. January, 1940. The Rice problem in India. WR Aykroyd, BG Krishnan, R. Passmore & AR Sundararajan
33. Memoir No. 33. December, 1941. Anaemia in pregnancy in Calcutta. L Everard Napier & MI Neal Edwards
34. Memoir No.34. March, 1942. A comparative nutritional survey of various Indian communities. DC Wilson & EM Widdowson
35. Memoir No. 35. March, 1950. Exact significance of difference in responses under two treatments. Satya Swaroop
36. Memoir No.36. October, 1950. Statistics for workers in nutrition and allied fields. Satya Swaroop.
37. Memoirs No. 37. March, 1951. Infections of the foot. V Ramachandra Rao, MG Kini.
38. Memoir No.38. August, 1954. Refraction and body growth. GS Pendse.

Memoriam

The Nation was stunned and shocked when on 30th January, 1948, Father of Nation, Mahatma Gandhi was shot dead, who besides sacrificing his life for India's freedom fight also fought against poverty and diseases with weapons of his own. His keen interest in sanitation brought many rebuke to those lacking sense of hygiene and cleanliness. On his death an obituary titled 'In Memoriam' was published in April 1948 issue of the IJMR (IJMR, 1948;36(2):73-74). Many more obituaries of

renowned luminaries like Sir Charles Pardey Lukis, Sir Ronald Ross, Dr K. R. Iyengar, Dr T. R. Rao, Dr S. P. Ramakrishna, Dr H. M. Bhatia, Prof S.R. Naik, Prof. A.S. Paintal, Dr Vijay Dhanda, Prof V. Ramalingaswami, etc. were published from time to time in IJMR.

Number of Articles

The first issue of the IJMR was started with 17 articles and in 1st volume containing 4 issues a total of 51 articles were published during 1913-14. During 98 years journey of

the IJMR more than 17,000 articles have been published which include original articles, review articles, editorials, commentaries, correspondence and book reviews, *etc.*

Editors of the IJMR

Many stalwarts have been associated in shaping the destiny and outlook of the IJMR for almost a century of its publication. The 1st issue of the journal was brought out in October 1913 under the editorship of the Director General, Indian Medical Services and the Public Health Commissioner with the Government of India in collaboration with Sir Ronald Ross and others. Later The Director, Central Research Institute (CRI), Kasauli used to assist in its editing. Col S R Christophers the then Director of CRI, Kasauli was the first full fledged Editor of the journal which was brought out in 1930 as volume 18 and thereafter at many occasions Director of CRI had the honour of being the editor of the journal. Dr G V Satyavati had the unique distinction and honour of serving the longest period of time so far as the editor of this prestigious journal from 1976 to 1993 (35 volumes, vol. 64-99) and relinquished the editorship of the journal consequent upon her elevation to the post of DG, ICMR in 1993. The journal has made rapid strides during the regime of the present editor Dr K. Satyanarayana as is reflected in the rise of its Impact Factor from 0.383 in 2000 to 1.826 currently. Many new sections such as editorial, commentaries, correspondence, *etc.* have been also introduced during this period. There have also been changes in the content quality and review system of the journal and it has now entered in to a web based editorial management system. A complete list of the editors of the IJMR is given in Table V. It is to be noted that till 1964 editorial office of the journal continued to be at Kasauli and business office at ICMR, New Delhi.

Digitization

Digitization is the process of transforming any physical information to a digital form. With the growing innovations and advancement in information and communication technology, many of the periodicals have now entered in to an electronic format. e-publishing and open-access is the new mantra of modern day publishing. In view of the same it was decided to digitize all the old issues of the IJMR, convert them into a searchable interface in pdf format and made available at the ICMR website to increase its visibility and impact, fulfill regular high demand of published articles and also to facilitate the global community an easy access to all the published articles of the IJMR since its inception (1913) to till date. The project on digitization of IJMR was started w.e.f. 1st September 2008 in collaboration with Centre for Development of Advanced Computing (C-DAC), Noida (an IT Company under Ministry of Communication and Information Technology, Govt. of India). The entire process was divided in to 3 broad categories *viz.*, scanning, cropping and cleaning and conversion to pdf and than creating metadata for retrieval of articles on the basis of key words, abstract, authors name, Institutes affiliation, *etc.* Once the scanning was completed, each scanned page was cleaned using the software like Abby Fine Reader and scan fix to remove black spots, lines or any other unwanted writings and alignment & contrast was also checked. Light or broken letters were automatically got filled by the scan fix software. Later each article was converted into a separate pdf. For metadata, entries were made in terms of title, year, volume no, authors, key words, abstract, Institutes affiliation, city and country in a pre-designed format using OCR technology. In old volumes where there were no abstract, summary or conclusion were

Table V. Editors of Indian Journal of Medical Research

Volume 1-17	Year 1913-1929	Edited by DG, IMS and The PHC with GOI and Director CRI in collaboration with Sir Ronald Ross
Volume 18-20	Year 1930-1932	Brevet Col. S.R. Christophers
Volume 21-31	Year 1933-1943	Lt Col J Taylor
Volume 32-35	Year 1944-1947	Lt Col H.W. Mulligan (vol 34 off Ed Lt Col W.J. Webster)
Volume 36-43	Year 1948-1955	Lt Col M.L. Ahuja
Volume 44-45	Year 1956-1957	Dr C.B.D'Silva, Acting Editor
Volume 46-52	Year 1958- 1964	Dr J. B. Srivastava
Volume 53	Year 1965	Dr A.K. Thomos, Acting Editor
Volume 54	Year 1966	Lt Col M.L. Ahuja (July Issue Dr A.K. Thomos)
Volume 55-62	Year 1967–1974	Lt Col M. L. Ahuja
Volume 62 - 64	Year 1974-1976 (No.9-12)	Dr. S. V. Apte
Volume 64 -99	Year 1976-1993 (No. 2-12)	Dr. G. V. Satyavati
Volume 100-118	Year 1994-2003 (till Aug)	Dr. N. Medappa
Volume 118 – till date	Year 2003 (Sept) onwards	Dr K. Satyanarayana

DG, IMS- Director General, Indian Medical Service; GOI- Government of India; PHC-Public Health Commissioner; CRI- Central Research Institute; Off Ed- Officiating Editor; Lt Col– Lieutenant Colonel; Col– Colonel.

used as abstract so as to cover important points, issues of the article so that they can be covered in key word searching. Old issues from 1994 backwards were not having any key words. At least 4-5 key words for each article were manually structured with the help of subject expert, to facilitate the searching and retrieval. The metadata was quality checked and corrected so as to remove spelling mistakes or other errors. Finally each article in its pdf format and corresponding metadata was re-checked, validated and uploaded. With the completion of digitization work of the IJMR all the articles published in this journal since its inception (1913) till date are now available in searchable interface at the following websites: <http://www.ijmr.org.in>; <http://www.ijmr.in> and <http://www.icmr.nic.in>.

Conclusions

The IJMR is the oldest known biomedical journal in India and is the flagship of the ICMR. There is continuous high demand for published articles of the IJMR and since full text articles, till now were available from 2003 onwards only, it was call of the hour to digitize the old issues of the IJMR and made them available in a searchable interface at the word wide web. With the completion of this task it has

now become extremely simple to search and retrieve any article published in IJMR since its inception in pdf format anytime anywhere. This will also let the people know about the classical work carried out in early part of the 20th century on the causes, transmission and prevention of various infectious and communicable diseases like malaria, filariasis, Kala azar, Plague, etc. Since the articles published in the supplements, special issues and Indian Medical Research Memoirs have also been made available full text in pdf format, they may prove to be an added advantage. This will definitely increase the global visibility and outreach of the ICMR in general and IJMR in particular. It is expected that the global scientific community will be immensely benefited by this work which will go a long way in reducing the global burden of many severe human diseases.

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This write-up has been contributed by Dr. Rajni Kant, Scientist D, ICMR Headquarters, New Delhi

ABSTRACTS

Some Research Projects Completed Recently

Development of a scale for breast pain and nodularity

The study was carried out to develop and test a 5-point visual analogue ordinal pictorial scale to assess benign breast nodularity. The scale was named as Cardiff - Lucknow Breast Nodularity Scale.

The well formatted scale to objectively assess the breast nodularity in women with non-discrete lumpy breast was tested both in hospital and community setting with approximately 400 subjects in each group. Tests, re-test reliability and interobserver variability using robust kappa statistics for above scale was done. A face validity session of experts in breast disease was held at the All India Institute of Medical Sciences, New Delhi. Thus, a "Cardiff - Lucknow Breast Nodularity" scale is now available for regular clinical use.

Dr. Sandeep Kumar

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Publication

1. Raj, R., Kumar, S. and Dwivedi, V. Breast development and involution. *J Physiol* 5:10, 2004.

High and low dose azithromycin in cystic fibrosis: An intervention study to evaluate effect on disease parameters

A randomized control trial to compare two doses of

azithromycin (5 mg/kg/day and 15 mg/kg/day) in children with cystic fibrosis was carried. Children were randomly allocated to receive daily azithromycin (5 mg/kg/day or 15 mg/kg/day) for 6 months. All were followed up every month for clinical assessment and FEV1 for at least 12 months. There was no difference in clinical scores, FEV1, pulmonary exacerbation rates between two groups at baseline, 6 months and at 12 months. Pulmonary exacerbation increased with time and there was significantly more increase after 12 months of enrolment. Children tolerated it well for 6 months. There was no significant side effect of azithromycin.

It is concluded that azithromycin reduces pulmonary exacerbation but does not have much effect on FEV1 in children with cystic fibrosis who receive it continuously for 6 months. There is no significant difference between two doses (5 and 15 mg/kg/day). The result suggested that the decrease in the incidence of LRTI persists only till 3 months after discontinuing azithromycin. This suggests that carry over effect of the drug is limited. In such a scenario, the administration of drug may be needed for a much longer period of time. A study with larger sample size may be required to confirm the findings.

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ICMR NEWS

The following meetings of various technical committees/groups of the Council were held in June–July 2010.

Meeting of Scientific Advisory Group of the Division of Basic Medical Sciences was held at New Delhi (July 8, 2010)

Meetings of Scientific Advisory Committees (SACs) of ICMR Centres

SAC of the Centre for Advanced Research on Hepatic Progenitor Cell Research & Therapy at Govt. Stanley Medical College, Chennai June 19, 2010

SAC of the Centre for Advanced Research in Cancer Genetics and Genomics at the Advanced Centre for Treatment, Research and Education, Mumbai June 28, 2010

Meetings of Task Forces (TFs), Expert Groups/ Committees (EGs/ECs) held at New Delhi

EG on Stem Cell Research and Therapy to Review Clinical Trial Protocol June 1, 2010

TF on Development of a Model for Integrated Management of Non-communicable Diseases through Existing Health Systems in India June 8, 2010

Inter-Agency Meeting on Stem Cell Research & Therapy June 11, 2010

EG on Toxic Elements in Toys June 14, 2010

EG on Muscular Dystrophy June 15, 2010

EC on Biomedical Informatics Centre of ICMR June 23, 2010

Meetings of Project Review Committees (PRCs) held at New Delhi

PRC on Biomedical Engineering June 7, 2010

PRC on Pharmacology June 9, 2010

PRC on Oncology June 24–25, 2010

PRC on Traditional Medicine Research July 13, 2010

PRC on Neurology July 20, 2010

PRC on Otorhinolaryngology July 23, 2010

PRC on Environmental Hygiene & Occupational Health July 29, 2010

Participation of ICMR Scientists in Scientific Events

Dr. C.G. Pant, Scientist D, National Institute of Virology (NIV), Pune, participated in the Inter-regional Workshop for the MVM (Biosafety) Programme at Singapore (June 1–3, 2010).

Dr. Suman Kanungo, Scientist B, National Institute of Cholera and Enteric Diseases (NICED), Kolkata, participated in the VI PDVI (Pediatric Dengue Vaccine Initiative) Field Site Consortium Meeting, at California (June 2–4, 2010).

Dr. Pradeep Das, Director and Dr. Vijay Kumar, Scientist C, Rajendra Memorial Research Institute of Medical Sciences, Patna, participated in the Meeting of the Wellcome Trust Research and Development on Affordable Healthcare in India, at London (June 3–4, 2010).

Dr. S.M. Mehendale, and Dr. A.R. Risbud, Scientists F and Dr. Seema Sahay, Scientist D, National AIDS Research Institute (NARI), Pune, participated in the HIV Prevention Trials Network Annual Meeting, at Washington D.C. (June 6–10, 2010).

Dr. P. Jambulingam, Director, Dr. S.L. Hoti, Scientist F, Vector Control Research Centre (VCRC), Puducherry and Dr. A.C. Mishra, Director, NIV, Pune, participated in the Regional Meeting on Dengue and Chikungunya, at Chiang Rai (June 7–10, 2010).

Dr. G.B. Reddy, Scientist D, National Institute of Nutrition (NIN), Hyderabad, participated in the Meeting of Investigators of Indo-EU Collaborative Project on Functional Food, at Stockholm (June 13–15, 2010).

Dr. P. Suresh, Scientist E and Dr. Harishankar, Scientist B, NIN, Hyderabad, participated in the XI FELASA Meeting and XL Scand-LAS Joint Symposium on New Paradigms in Laboratory Animal Sciences, at Helsinki (June 14–17, 2010).

Dr. A.C. Mishra, Director, NIV, Pune, participated in the (i) WHO Informal Meeting for Improving Influenza Vaccine Virus Selection; and (ii) WHO Working Group Meeting on PCR Protocols for the Detection of Subtype Influenza A Virus, at Geneva (June 14–16 and 17–18, 2010, respectively).

Dr. M.S. Chadha, Scientist E, NIV, Pune, participated in the (i) Meeting on Influenza International Grantee and Burden of Disease; and (ii) International Conference on Emerging Infectious Diseases at Atlanta, Georgia (July 9–11 and 11–14, 2010 respectively).

Dr. R.C. Dhiman, Scientist F, National Institute of Malaria Research (NIMR), New Delhi, participated in the IV Ditan International Conference on Infectious Disease, at Beijing (July 15–18, 2010).

Dr. S. Vasanthi, Scientist C, NIN, Hyderabad, participated in the Workshop on “The Safety Assessment of Genetically Modified Foods”, at Bangladesh (July 16–20, 2010).

Dr. Arvind Pandey, Director, National Institute of Medical Statistics (NIMS), New Delhi and Dr. R. Ramakrishnan, Scientist E and Dr. Tarun Bhatnagar, Scientist C, NIE, Chennai, participated in the XVIII International AIDS Conference, at Vienna (July 17–23, 2010).

Dr. Poonam Salotra, Scientist E, Institute of Pathology, New Delhi, proceeded to work in the laboratory of Dr. Hira Nakhasi, Director, CBERFDA, Bethesda for a collaborative project on Vaccine Development for Kala-azar (July 21–August 6, 2010).

Dr. Dipika Sur, Scientist E, National Institute of Cholera and Enteric Disease, Kolkata, participated in the meeting of International Centre for Diarrhoeal Disease Research, at Dhaka (July 27–29, 2010).

Dr. Madhu B. Singh, Scientist E, Desert Medicine Research Centre, Jodhpur, participated in the EPS Global International Forum on Ageing, at Hongzhon (July 29–30, 2010).

Drs. Geeta Verghese and Smita D. Mahale, Scientists, E and Dr. Geetanjali Sachdeva, Scientist D, National Institute for Research in Reproductive Health, Mumbai, participated in the XLIII Annual Meeting of the Society of Reproduction, at Wisconsin (July 30–August 3, 2010).

Dr. B.K. Tyagi, Scientist F and Director-in-Charge, Centre for Research in Medical Entomology, Madurai, participated in the BIT's I World Congress of Virus and Infections, at Busan (July 31–August 3, 2010).

Trainings

Dr. Vineeta Singh, Scientist B, NIMR, New Delhi, underwent Training on Research on Malaria Pathogen Plasmodium vivax at the New York University Lanone Medical Centre, New York (June 5–18, 2010).

Dr. Alok Bharati, and Mr. J.K. Sharma, Scientists D, Institute of Cytology and Preventive Oncology, NOIDA, participated in the Confocal Microscope Training in Germany (July 19–23, 2010).

Dr. Kalpagam Polasa, Scientist F, NIN, Hyderabad, participated in the Food Safety Laboratory Training Programme at Michigan State University, East Lansing, Michigan (July 25–September 2, 2010).