ISSN 0973-9777 Volume-6 Number-4 July-August 2012

The Indian Journal of Research

# ANVIKSHIKI

Bi-monthly International Journal of all Research

Science

MPASVO
Published on behalf of the MPASVO in association with the Member's of Anvikshiki

MANEESHA PUBLICATIONS
www.anvikshikijournal.com

# Anvikshiki
# The Indian Journal of Research

Bi-Monthly International Journal of All Research



***Abstracts and Indexing***

http//nkrc.niscair.res.in/browseByTitle.php?Keword=A, ICMJE ,www.icmje.org, , banaras.academia.edu, ebookbrowse.com, BitLibrary! http:/ www.bitlib.net/, Tech eBooks ,freetechebooks.com, ,artapp.net,Catechu PDF / printfu.org, ,www.fileaway.info, , ,http://www.docslibrary.com, ,Android Tips, Apps, Theme and Phone Reviews http://dandroidtips.com, , http://www.edu-doc.com, www.themarketingcorp.com,Dunia Ebook Gratis duniaebook.net, ,www.cn.doc-cafes.com., Google ,http://scholar.google.co.in, Website : www.onlineijra.com.Motilal Banarasi Das Index,Varanasi, Motilal Banarasi Das Index,Delhi. Banaras Hindu University Journal Index,Varanasi. www.bhu.ac.in, D.K.Publication Index, Delhi. National Institute of Science Communication and Information Resources Index, New Delhi.

***Subscriptions***

Anvikshiki,The Indian Journal of Research is Published every two months (January,March,May,July,September and November) by mpasvo Press,Varanasi.u.p.India. A Subscription to The Indian Journal of Research : Anvikshiki Comprises 6 Issues in Hindi and 6 in English and 3 Extra Issues. Prices include Postage by Surface mail,or For Subscription in the India by Speed Post. Airmail rates are also available on request. Annual Subscriptions Rates (Volume 3,6 Issues in Hindi,6 Issues in English and 6 Issues of science 2012):

***Subscribers***

Institutional : Inland 4,000 +500 Rs. P.C., Single 500+51 Rs.P.C.,Overseas 6000+2000Rs. P.C., Single 1000+500 Rs.P. C.

Personal : 2,500+500 Rs. P.C., Single 500+51 Rs. P.C., Overseas 5000+2000Rs.P.C., Single 1000+500Rs. P.C.

***Advertising & Appeal***

Inquiries about advertising should be sent to editor's address. Anvikshiki is a self financed Journal and support through any kind or cash shall be highly appreciated. Membership or subscription fees may be submitted via demand draft in faver of Dr. Maneesha Shukla and should be sent at the address given below. Sbi core banking cheques will also be accepted.

***All correspondence related to the Journal should be addressed to***


B.32/16 A., Flat No.2/1,Gopalkunj,Nariya,Lanka, Varanasi, U.P.,India

Mobile : 09935784387,Tel.0542-2310539.,e-mail : maneeshashukla76@rediffmail.com,www.anvikshikijournal.com

Office Time : 3-5 P.M.(Sunday off)



***Journal set by***

Maheshwar Shukla,maheshwar.shukla@rediffmail.com

9415614090

***Printed by***

mpasvo Press

**Maneesha Publication**

(Letter No.V-34564,Reg.533/2007-2008)

B-32/16-A-2/1,Gopalkunj,Nariya,Lanka

Varanasi,U.P.,India

# Anvikshiki
# The Indian Journal of Research
Volume 6 Number 4 July 2012

## Science
### Papers

PRINT ISSN 0973-9777,WEBSITE ISSN 0973-9777

Letter No.V-34564,Reg.533/2007-2008 INDIAN JOURNAL OF RESEARCH(2012)**6,14-19**
ANVIKSHIKI ISSN 0973-9777 Advance Access publication 16 Jun. 2012

# IMPLANT DENTISTRY IN MEDICALLY COMPROMISED PATIENTS- A REVIEW

DR. ANKITA SINGH*, DR. RAJUL VIVEK** AND PROF. T. P. CHATURVEDI***

## *Declaration*

The Declaration of the authors for publication of Research Paper in The Indian Journal of Research Anvikshiki ISSN 0973-9777 Bi-monthly International Journal of all Research: We, *Ankita Singh, Rajul Vivek and T. P. Chaturvedi* the authors of the research paper entitled IMPLANT DENTISTRY IN MEDICALLY COMPROMISED PATIENTS- A REVIEW declare that , We take the responsibility of the content and material of our paper as We ourself have written it and also have read the manuscript of our paper carefully. Also, We hereby give our consent to publish our paper in Anvikshiki journal , This research paper is our original work and no part of it or it's similar version is published or has been sent for publication anywhere else.We authorise the Editorial Board of the Journal to modify and edit the manuscript. We also give our consent to the Editor of Anvikshiki Journal to own the copyright of our research paper.

## *Introduction*

Systemic conditionsmay be treated with medications or other therapy potentially affecting implants and the tissues carrying them. An existing systemic disease or ongoing systemic therapy may complicate or contra-indicate implant dentistry. An increased knowledge of the underlying disease process has improved the management of patients suffering from bone metabolism abnormalities, diabetes mellitus, xerostomia, and ectodermal dysplasia.

The purpose of this review was to evaluate the impact of systemic diseases and their treatment on the success of osseointegration therapy. This review aims to compile and critically discuss currentknowledge of the clinically relevant impact of the most commonsystemic diseases on the success of implant therapy.

## *I) Metabolic Bone Disease*

Deposition of bone during periodontal regeneration for the purpose of supporting dental implants, however, may depend upon cellular mechanisms that are determined, in part, by systemic, *i.e.*, genetic, molecular, or pharmacological factors associated with low bone mass.[1]

## *Osteoporosis*

*(Corresponding Author ) Service Senior Resident, Unit of Prosthodontics [Faculty of Dental Sciences] Institute of Medical Sciences, Banaras Hindu University Varanasi (U.P.) India. e-Mail : drankita.prosthetics@gmail.com
**Service Senior Resident, Unit of Prosthodontics [Faculty of Dental Sciences] Institute of Medical Sciences, Banaras Hindu University Varanasi (U.P.) India. e-Mail : rajul8119@gmail.com
***Dean and Head, Faculty of Dental Sciences [Institute of Medical Sciences] Banaras Hindu UniversityVaranasi (U.P.) India. e-Mail : tpchaturvedi@rediffmail.com

Osteoporosis is a skeletal condition characterized by decreased mineral density (mass/volume unit) of normally mineralized bone.[2] The World Health Organization has established diagnostic criteria for osteoporosis based on bone density measurements determined by dual energy x-ray absorptiometry.[3]

The concern that dental implants are at an increased risk for failure in osteoporotic patients is based on the assumption that the impaired bone metabolism affects the mandible or maxilla in a manner similar to its effects on other bones.[4] However, since a potential relationship between osteoporosis and decreased oral bone mass or density is controversial [5,6,7,8], it is actually not easy to assess whether bone quantity and quality in the mandible and maxilla parallel those in the rest of the skeleton.[4,9]

Very few investigators have studied dental implants in individuals with metabolic bone disease, especially osteoporosis.[10] Case reports have indicated that dental implants can be successfully placed in osteoporotic patients.[10] Implant success has been reported in glucocorticoid-dependent patients,[11,12] even in those with steroid-induced osteoporosis, as well as in patients suffering from severe osteoporosis and chronic polyarthritis.[13,14]

Prior to implant surgery, a careful assessment of nutrition and systemic health in patients at risk for metabolic bone disease is recommended.[15] Patients should undergo an endocrinologic, orthopedic, or obstetric examination and be treated, if necessary. In cases of insufficient bone volume, the implant sites should be augmented before or during implant surgery.[16]

In addition, the occlusal load should be properly distributed throughout the dentition to avoid overloading the implant, which may contribute to implant loss. The healing period should be extended by 2 months, i.e., 8 vs. 6 months in the maxilla and 6 vs. 4 months in the mandible[10,17]before construction of the prosthodontic appliance. Preference should be given to implant designs that will have close bone-implant contact on insertion to ensure primary stabilization in less dense osteoporotic bone.

### *II) Diabetes Mellitus*

Diabetes mellitus is associated with a wide range of systemic complications such as retinopathy, nephropathy, neuropathy,micro- and macrovascular disease, and altered wound healing.[18] In the oral cavity, diabetes mellitus is associated with xerostomia, increased levels of salivary glucose, swelling of the parotid gland, and an increased incidence of caries and periodontitis .[18,19]

The risk for developing periodontitis in type 2 diabetics is 2.9 to 3.4 times higher than in non-diabetics.[21] Although there has been some conflicting evidence, this increased susceptibility to periodontitis may be due to inadequately controlled or non-controlled diabetic patients being more prone to infection[22] due to compromised host defense systems, *e.g.*, significantly lower chemotaxis, phagocytosis, and decreased bacterial killing of PMNs.[23,24,25] In addition, microvascular disease may adversely affect the blood supply and also contribute to the high susceptibility of diabetics to infection.[22,26]

Several studies have specifically addressed the failure rate of dental implants in the diabetic patient. In various retrospective studies, [27,28,29,30] the observed implant success rates ranged from 85.6% [28] to 94.3% .[27]To what extent the duration of diabetes mellitus is associated with implant failure needs to be elucidated, since the present data are equivocal. [28,31]The placement of dental implants in diabetic patients remains controversial. Screening for diabetes is recommended to increase the chances of successful osseointegration. Poorly controlled diabetic patients are more difficult to manage, and a delay in surgery is recommended until better control is achieved.[29]The placement of dental implants in patients with metabolically controlled diabetes appears to be just as successful as in the general population. [32]

### *III) Xerostomia*

The most prominent causes of reduced salivary flow are therapeutic pharmaceutical side-effects. [33]It can be induced by over 400 drugs, including tricyclic antidepressants, antihistamines, and diuretics.[34]A decrease in salivary flow rate can also be accompanied by a change in salivary composition. These changes and the reduced antibacterial action of the saliva itself lead to a favorable environment for the growth of bacteria,[35,36]and to decreased bacterial clearance in the oral cavity.[37] In addition to bacterial infections, patients with xerostomiaoften suffer from fungal infections, *e.g.*, recurrent oral candidiasis,[36]In xerostomia, the lack of adhesive function can preclude the development and maintenance of an effective denture seal and can have an adverse effect on successful prosthetic reconstruction.[38]Moreover, the risk of candidiasis developing is higher in patients wearing removable.[39,40]Accordingly, in patients with severe xerostomia, fixed implant supported bridges may be the preferred treatment modality.[41]Patients wearing implant-supported overdentures should be instructed to take the dentures out at night, since candida species can lodge in the denture acrylate.[42]

When implants are considered to be viable therapeutic options in patients with xerostomia, it seems prudent for clinicians to adhere to the following guidelines. Prior to implant placement, the underlying cause of the xerostomia needs to be properly diagnosed and treated. Oral bacterial infections such as periodontitis, caries, or fungal infections such as candidiasis should be thoroughly treated prior to implant placement. After implant placement, maintenance intervals should be shortened to prevent the development of peri-implantitis due to the increased plaque formation in these patients. Stimulation of salivary flow can be achieved by either physiological or pharmacological means.

### *IV) Ectodermal Dysplasias*

Ectodermal dysplasias (ED) represent a rare group of inherited disorders that occur in approximately 1 *per* 100,000 live births.[43]In patients with ED, abnormal dentition with hypodontia or, more rarely, anodontia is the most common intra-oral feature. Dental treatment aimed at functional, esthetic, and psychological rehabilitation is therefore an essential part of the management of ED and should start early in the patient's life.[44]Conventional prosthodontic treatment (complete dentures, overdentures, or a combination of bridgework and removable partial dentures) often faces severe problems due to anatomical abnormalities of existing teeth and alveolar ridges, resulting in poor retention and instability of prostheses.[45,46] In children with ED where no success can be achieved with conventional prosthetic appliances, implant therapy appears to be a viable option. There are only a few case reports in the literature about implants in children with ectodermal dysplasias, these reports indicate that implants are a successful adjunct to oral rehabilitation.[44,47,48,49,50]As there are only a very few long-term reports of implant therapy in children with ectodermal dysplasia and its effects on the development of the maxillofacial structures. Therefore, it is recommended that implant installation be postponed whenever possible until the patient's skeletal and dental growth has been completed.[51,52,53]

## *Conclusion*

Clinicians must temper their enthusiasm for implant dentistry with thorough knowledge and understanding of the physiologic implications in the medically compromised patient and therefore additional reliable,clinically relevant, information is needed.In line with these implications, endosseous implant therapy can greatly improve the function and esthetics of carefully selected partially or completely edentulous patients.

## Reference

[1] Garnero P, Delmas PD. Osteoporosis. EndocrinolMetabClin North Am 1997;26:913-936.

[2] Glaser DL, Kaplan FS. Osteoporosis.Definition and clinical presentation.Spine1997;22:12S-16S.

[3.] *World Health Organisation.*Assessment of fracture risk and its application to screening for post-menopausal osteoporosis: report of a WHO study group. World Health Organ Tech Rep Ser1994;843:1-129.

[4.] Mori H, Manabe M, Kurachi Y, Nagumo M. Osseointegration of dental implants in rabbit bone with low mineral density. J Oral MaxillofacSurg1997;55:351-361.

[5.] Krolner B, Nielson SP Clinical application of dual photon absorptiometry of the lumbar vertebrae. In: Non-invasive bone measurements: methodological problems. Dequeker J, Johnston CC, editors. Oxford: IRL Press, pp. 1982;201-205.

[6] Kribbs PJ, Chesnut CH III, Ott SM, Kilcoyne RF. Relationships between mandibular and skeletal bone in an osteoporotic population. J Prosthet Dent 1989;62:703-707.

[7] Kribbs PJ Comparison of mandibular bone in normal and osteoporotic women. J Prosthet Dent 1990;63:218-222.

[8] Payne JB, Reinhardt RA, Nummikoski PV, Patil KD. Longitudinal alveolar bone loss in postmenopausal osteoporotic/ osteopenic women.OsteoporosInt1999;10:34-40.

[9] Heersche JN, Bellows CG, Ishida Y. The decrease in bone mass associated with aging and menopause. J Prosthet Dent1998;79:14-16.

[10] Fujimoto T, Niimi A, Nakai H, Ueda M. Osseointegrated implants in a patient with osteoporosis: a case report. Int J OralMaxillofac Implants 1996;11:539-542.

[11.] Steiner M, Ramp WK .Endosseous dental implants and the glucocorticoid-dependent patient.J Oral Implantol1990; 16:211-217.

[12.] Cranin AN Endosteal implants in a patient with corticosteroid dependence. J Oral Implantol1991; 17:414-417.

[13.] Friberg B Treatment with dental implants in patients with severe osteoporosis: a case report. Int J Periodont Rest Dent1994;14:348-353.

[14.] Eder A, Watzek G). Treatment of a patient with severe osteoporosis and chronic polyarthritis with fixed implant-supported prosthesis: a case report. Int J Oral Maxillofac Implants 1999;14:587- 590.

[15.] Cooper LF Systemic effectors of alveolar bone mass and implications in dental therapy. Periodontol 2000;23:103-109.

[16.] Nasu M, Amano Y, Kurita A, Yosue T .Osseointegration in implant-embedded mandible in rats fed calcium-deficient diet: a radiological study. Oral Dis 1998;4:84-89.

[17.] Lugero GG, de Falco Carpalo V, Guzzo ML, Konig B, Jorgetti V. Histomorphometric evaluation of titanium implants in osteoporotic rabbits. Implant Dent 2000;9:303-309.

[18.] *Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus.* Diabetes Care 1997;20:1183-1197.

[19.] *Murrah VA Diabetes mellitus and associated oral manifestations: a review.* J Oral Pathol1985;14:271-281.

[20.] Rees TD. Periodontal management of the patient with diabetes mellitus.Periodontol 2000;23:63-72.

[21.] *Klokkevold PR Periodontal medicine: assessment of risk factors for disease.* J CA Dent Assoc1999;27:135-142.

[22.] Larkin JG, Frier BM, Ireland JT .Diabetes mellitus and infection.Postgrad Med J1985;61:233-237.

[23.] Wilson RM, Reeves WG. Neutrophil phagocytosis and killing in insulin-dependent diabetes. ClinExpImmunol1986;63:478- 484.

[24.] Delamaire M, Maugendre D, Moreno M, Le Goff MC, Allannic H, Genetet B. Impaired leucocyte functions in diabetic patients. Diabet Med 1997;14:29-34.

[25.] GEERLINGS SE, HOEPELMAN AI. Immune dysfunction in patients with diabetes mellitus (DM).FEMS Immunol MedMicrobiol1999;26:259-265.

[26.] EL ASKARY AS, MEFFERT RM, GRIFFIN T. Why do dental implants fail? Part I. Implant Dent 1999;8:173-185.

[27.] BALSHI TJ, WOLFINGER GJ. Dental implants in the diabetic patient: a retrospective study. Implant Dent1999;8:355-359.

[28.] FIORELLINI JP, CHEN PK, NEVINS M, NEVINS ML. A retrospective study of dental implants in diabetic patients.Int J Periodont RestDent2000;20:366-373.

[29.] SMITH RA, BERGER R, DODSON TB. Risk factors associated with dental implants in healthy and medically compromised patients. Int J Oral Maxillofac Implants 1992;7:367-372

[30.] KAPUR KK, GARRETT NR, HAMADA MO, ROUMANAS ED, FREYMILLER E, HAN T, et al. A randomized clinical trial comparing the efficacy of mandibular implant-supported overdentures and conventional dentures in diabetic patients. Part I: Methodology and clinical outcomes. J Prosthet Dent 1998;79:555-569.

[31.] OLSON JW, SHERNOFF AF, TARLOW JL, COLWELL JA, SCHEETZ JP, BINGHAM SF. Dental endosseous implant assessments in a type 2 diabetic population: a prospective study. Int J Oral MaxillofacImplants 2000;15:811-818.

[32.] *Proceedings of the 1996 World Workshop in Periodontics.* Consensus report: implant therapy II. Ann Periodontol1996;1:816-820.

[33.] SCHEIN OD, HOCHBERG MC, MUNOZ B, TIELSCH JM, BANDEEN-ROCHE K, PROVOST T, et al. Dry eye and dry mouth in the elderly: a population-based assessment. Arch Intern Med 1999;159:1359-1363.

[34] SREEBNY LM, SCHWARTZ SS. A reference guide to drugs and dry mouth—2nd edition. Gerodontology1997;14:33-47.

[35.] GARG A. Pharmacological agents used in implant dentistry. Implant Soc1992;3:1, 5-7, 16.

[36.] AL HASHIMII .The management of Sjögren's syndrome in dental practice.J Am Dent Assoc2001;132:1409-1417.

[37.] MELVIN JE. Saliva and dental diseases.CurrOpin Dent 1991;1:795- 801.

[38.] BLANCHAERT RH. Implants in the medically challenged patient.Dent Clin North Am1998;42:35-45.

[39.] BUDTZ-JØRGENSEN E. The significance of Candida albicansin denture stomatitis.Scand J Dent Res 1974;82:151-190.

[40.] BUDTZ-JØRGENSEN E, LOMBARDI T. Antifungal therapy in the oral cavity. Periodontol 2000 1996;10:89-106.

[41.] ESPOSITO M, HIRSCH JM, LEKHOLM U, THOMSEN P .Biological factors contributing to failures of osseointegrated oral implants. (II). Etiopathogenesis. Eur J Oral Sci1998;106:721-764.

[42.] VAN DER REIJDEN WA, VISSINK A, VEERMAN EC, AMERONGEN AV. Treatment of oral dryness related complaints (xerostomia) in Sjögren's syndrome. Ann Rheum Dis 1999;58:465-474.

[43.] CLARKE A. Hypohidrotic ectodermal dysplasia. J Med Genet 1987;24:659-663.

[44.] BERGENDAL T, ECKERDAL O, HALLONSTEN AL, KOCH G, KUROL J, KVINT S Osseointegrated implants in the oral habilitation of a boy with ectodermal dysplasia: a case report. Int Dent J 1991;41:149- 156.

[45.] DHANRAJANI PJ, JIFFRY AO. Management of ectodermal dysplasia: a literature review. Dent Update 1998;25:73-75.

[46.] KEARNS G, SHARMA A, PERROTT D, SCHMIDT B, KABAN L, VARGERVIK K. Placement of endosseous implants in children and adolescents with hereditary ectodermal dysplasia. Oral Surg OralMed Oral Pathol Oral RadiolEndod1999;88:5-10.

[47.] SMITH RA, VARGERVIK K, KEARNS G, BOSCH C, KOUMJIAN J. Placement of an endosseousimplant in a growing child with ectodermal dysplasia. Oral Surg Oral Med Oral Pathol1993;75:669- 673.

[48.] DAVARPANAH M, MOON JW, YANG LR, CELLETTI R, MARTINEZ H Dental implants in the oral rehabilitation of a teenager with hypohidrotic ectodermal dysplasia: report of a case. Int J OralMaxillofac Implants 1997;12:252-258.

[49.] GUCKES AD, MCCARTHY GR, BRAHIM J Use of endosseous implants in a 3-year-old child with ectodermal dysplasia: case report and 5-year follow-up. Pediatr Dent 1997;19:282-285.

[50.] EKSTRAND K, THOMSSON M. Ectodermal dysplasia with partial anodontia: prosthetic treatment with implant fixed prosthesis. ASDC J Dent Child 1988;55:282-284.

[51.] BERGENDAL B, BERGENDAL T, HALLONSTEN AL, KOCH G, KUROL J, KVINT S. A multidisciplinary approach to oral rehabilitation with osseointegrated implants in children and adolescents with multiple aplasia. Eur J Orthod1996;18:119-129.

[52.] DIETSCHI D, SCHATZ JP. Current restorative modalities for young patients with missing anterior teeth.Quintessence Int 1997;28:231-240.

[53.] PERCINOTO C, VIEIRA AE, BARBIERI CM, MELHADO FL, MOREIRA KS. Use of dental implants in children: a literature review. Quintessence Int2001;32:381-383.

## *Note for Contributors*

### SUBMISSION OF PAPERS

Contributions should be sent by email to Dr. Maneesha Shukla Editor-in-Chief, Anvikshiki, The Indian Journal of Research (maneeshashukla76@rediffmail.com). www.onlineijra.com

Papers are reviewed on the understanding that they are submitted solely to this Journal. If accepted, they may not be published elsewhere in full or in part without the Editor-in-Chief's permission. Please save your manuscript into the following separate files-***Title; Abstract; Manuscript; Appendix.*** To ensure anonymity in the review process, do not include the names of authors or institution in the abstract or body of the manuscript.

***Title*****:** This title should include the manuscript, full names of the authors, the name and address of the institution from which the work originates the telephone number, fax number and e-mail address of the corresponding author. It must also include an exact word count of the paper.

***Abstract*****:** This file should contain a short abstract of no more than 120 words.

***MANUSCRIPT:*** This file should contain the main body of the manuscript. Paper should be between 5 to 10 pages in lenth,and should include only such reviews of the literature as are relevant to the argument. An exact word count must be given on the title page. Papers longer than 10 pages (including *abstracts, appendices and references*) will not be considered for publication. Undue length will lead to delay in publication. Authors are reminded that Journal readership is abroad and international and papers should be drafted with this in mind.

***References should be listed alphabetically*** at the end of the paper, giving the name of journals in full. Authors must check that references that appear in the text also appear in the References and *vice versa.* Title of book and journals should be italicised.

***Examples*****:**

BLUMSTEIN,A.and COHEN,J.(1973),'A Theory of Punishment' *Journal of Criminal Law and Criminology,*64:198-207

GUPTA,RAJKUMAR(2009),*A Study of The Ethnic Minority in Trinidad in The Perspective of Trinidad Indian's Attempt to Preserve Indian Culture,* India: Maneesha Publication,

RICHARDSON,G(1985),Judicial Intervention in Prison Life', in M. Maguire ,J. Vagg and R. Morgan, eds., *Accountability and Prisons,*113-54.London:Tavistocs.

SINGH,ANITA.(2007),*My Ten Short Stories,*113-154.India:Maneesha Publication.

In the text,the name of the author and date of publication should be cited as in the Harvard system(e.g.Garland 1981: 41-2;Robertson and Taylor 1973;ii.357-9)If there are more than two authors, the first name followed by *et al.* is manadatory in the text,but the name should be spelt out in full in the References. Where authors cite them as XXXX+date of publication.

***Diagrams and tables*** are expensive of space and should be used sparingly. All diagrams, figures and tables should be in black and white, numbered and should be referred to in the text.They should be placed at the end of the manuscript with there preferred location indication in the manuscript(e.g.Figure 1 here).

***Appendix:*** Authors that employ mathematical modelling or complex statistics should place the mathematics in a technical appendix.

***NOTE :*** Please submit your paper either by post or e-mail along with your photo, bio-data, e-mail Id and a self-addressed envelop with a revenue stamp worth Rs.51 affixed on it. One hard copy along with the CD should also be sent.A self-addressed envelop with revenue stamp affixed on it should also be sent for getting the acceptance letter. Contributors submitting their papers through e-mail, will be sent the acceptance letter through the same. Editorial Board's decision will be communicated within a week of the receipt of the paper. For more information, please contact on my mobile before submitting the paper. All decisions regarding members on Editorial board or Advisory board Membership will rest with the Editor. Every member must make 20 members for Anvikshiki in one year. For getting the copies of 'Reprints', kindly inform before the publication of the Journal. In this regard, the fees will be charged from the author.

Search Research papers of The Indian Journal of Research Anvikshiki-ISSN 0973-9777 in the Websites given below

http://nkrc.niscair.res.in/BrowseByTitle.php?keyword=A

National Knowledge Resource Consortium

www.icmje.org

ICMJE INTERNATIONAL COMMITTEE of MEDICAL JOURNAL EDITORS

www.scholar.google.co.in

Google scholar

www.kmle.co.kr

KMLE 의학 검색 엔진
Korean medical library engine
http://www.kmle.co.kr

www.fileaway.info

File Away

www.banaras.academia.edu

Academia.edu
follow research

www.www.edu-doc.com

Edu-Doc

www.docslibrary.com

docslibrary
Search Any Document Files Over The Internet!

www.dandroidtips.com

MyCelular.ORG

www.printfu.org

pdf search engine
ARTAPP.NET

www.cn.doc-cafes.com

DOC CAFES

www.freetechebooks.com

Tech eBooks

www.google.com

Google India

IJRA

www.onlineijra.com

ISSN 0973-9777
09739777

₹ 1500/-