8th

22nd & 23rd Oct. 2016
Guwahati, Assam

IORACON 2016

The Annual Conference of Indian Orthopaedic Rheumatology Association

THEME : STEM CELL THERAPY IN ORTHOPAEDIC RHEUMATOLOGY

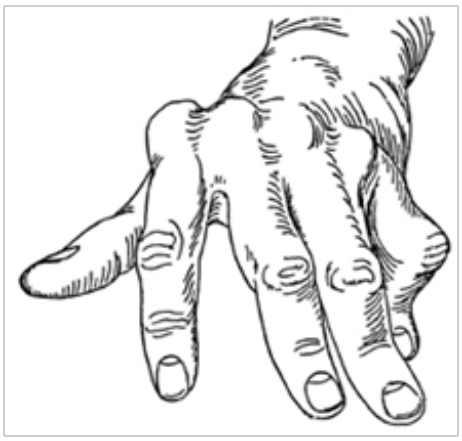
Organized by IORA
in Collaboration
with

North-East Regional Orthopaedic Surgeons' Association

IORACON-2016

8th National Annual Conference
Indian Orthopaedic Rheumatology Association

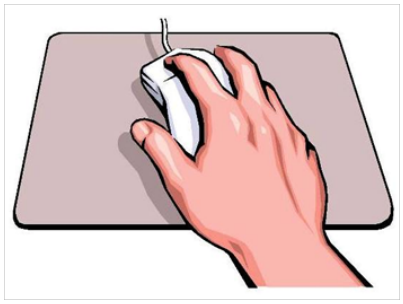
Theme: Stem Cell Therapy in Orthopaedic Rheumatology.



Souvenir Editor:

Dr Bhaskar Borgohain

MBBS, MS, DNB, AO Fellow
NEIGRIHMS, Shillong



Organizing Secretary: **Dr Diganta A.Phukan, Guwahati**

Chairman Scientific Committee: **Prof. G. S. Borgohain, Dibrugarh**

Organizing Chairman: **Prof. Santanu Lahkar, Dibrugarh**

On behalf of IORA & NEROSA
The Organizing Committee welcomes you all to

IORACON-2016
8th National Annual Conference of Indian Orthopaedic Rheumatology Association

Theme: Stem Cell Therapy in Orthopaedic Rheumatology.

NEROSA

Date: Oct 22-23 , 2016
Venue: Hotel Radisson Blu
National Highway 37, Gotanagar, ***Guwahati***-781033. Assam

Scanned copy of
MESSAGE FROM GOVERNOR OF ASSAM

Dr. Mukul Sangma
Chief Minister
MEGHALAYA

Office : 0364-2224282
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(R) 2522752

Dated Shillong, the 7th October, 2016.

MESSAGE

It gives me immense pleasure to learn that the North-East Regional Orthopaedic Surgeons' Association (NEROSA) is hosting the 8th Annual National Conference of the Indian Orthopaedic Rheumatology Association on 22nd and 23rd October 2016 at Guwahati.

I convey my best wishes for the souvenir to be released on this occasion. The NEROSA Indian Orthopaedic Rheumatology Association and its leadership deserve congratulations for organizing such a Prestigious National Conference at Guwahati, Assam, the Gateway to the North-East India. I hope that the deliberations would be of highest academic order.

I am confident; the Souvenir being published on this occasion will reflect the latest trend in the management of Osteoarthritis and Rheumatoid Arthritis and other joint disorders.

I take this opportunity to welcome all the experts and delegates to the North-East India and I hope that the conference will generate thoughts and ideas immensely benefiting patients of joint disorders.

I wish the Conference a Grand Success.

(Dr Mukul Sangma),

Prof. U.C. Sarma, M.B.B.S. (Gau), M.D. (B.H.U.)
M. Sc. in Epidemiology (London University),
P.G. Training in Epidemiology (London University)
Vice Chancellor,
Srimanta Sankaradeva University of Health Sciences
Narakasur Hilltop, Bhangagarh, Guwahati-781032, Assam, India.

Date: 18.10.2016

MESSAGE

I am happy to know that the North East Regional Orthopaedic Surgeons' Association (NEROSA) is hosting the National Annual conference, the 8th IORACON in Guwahati, Assam focusing on better management of patients suffering from Arthritis to reduce arthritis related disabilities on October 22-23, 2016.

I appreciate that the theme of the conference is apt and timely, as it highlights the emerging role of regenerative medicine and stem cell therapy in arthritis and renowned international faculty will participate in the discussions.

With better life expectancy in India, such scientific pursuits for better management of arthritis is a welcome step to deal with our aging population to reduce suffering.

I hope the learned invitees will deliberate on the key issues to improve quality of care of patients suffering from arthritis relevant to Assam and the North-East.

I wish the conference a grand success.

UCSarma 18.10.16

(Prof. U.C. Sarma)
Vice Chancellor,
Srimanta Sankaradeva University of Health Sciences.

To,

Dr. Bhaskar Borgohain,
Souvenir Editor
HoD, Orthopaedics & Trauma, NEIGRIHMS.

IORA President's Message

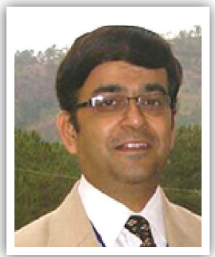
Rheumatology is the Medical counterpart of Orthopedic Surgery. The advanced Rheumatological conditions are taken care of by trained Rheumatologists. We Orthopedic Surgeons deal with a multitude of basic rheumatological conditions in our daily practice. It is for us to upgrade our knowledge of these conditions, lest we miss the essence of understanding and advances in treatment. To focus our attention on these conditions, the Indian Orthopedic Rheumatology Association (IORA) was formed in 2009 under the leadership of eminent orthopaedic surgeons, Drs.S.S.Jha and Manish Khanna. The association has just crossed its infancy and entered into early childhood and the membership is growing consistently.

In order that the orthopaedic surgeons from all over the country get acquainted to IORA, its annual conferences are conducted across the length and breadth of the country – Shillong, Ahmedabad, Hyderabad, Srinagar, Madurai etc.. This time around it is going to be in North-Eastern part of the country – Guwahati. Dr.ShantanuLahkar, a senior member of IORA has taken the responsibility and he is making all efforts to make this a memorable conference, not only academically but also socially to explore the scenic beauty of North-East.

As the President of IORA it is my pleasure and duty to welcome you all to the conference with a request to attend in large numbers. Please encourage your colleagues to become members of IORA.

Dr.A.SrinivasaRao
President, IORA

INDIAN ORTHOPAEDIC RHEUMATOLOGY ASSOCIATION (IORA)



Prof Dr Manish Khanna
Founder Secretary General IORA

It gives me immense pleasure to be a part of IORA Cargo team. IORACON 2016 is expected to go a long way in the academic development of stem cell therapy and Orthopaedic Rheumatology in our country. I hope that the Doctors and Scientist of India who have already being rendering phenomenal services of highest quality to the nation will be benefited by the intellectual deliberations from the interaction with renowned experts from reputed institutions across the Globe. This opportunity of learning and interaction will be of immense value to boost the scientific enthusiasm among the delegates. This continuous learning has no limit as it updates our knowledge which leads to better human services.

I hope that deliberations at the conference will help in the development of expertise and knowledge and bring forth the advances in Regenerative science.

The year 2015-16 has been a mixed bag for IORA.We have achieved few milestones and missed some. The main achieved mile stone was starting of Journal of Indian Orthopaedic Rheumatology Association,the first issue released in Dec 2015. The journal has on its board two International Editorial members and few renound Indian Editorial Board members. JIORA focuses on all aspect of Orthopaedic Rheumatology including the clinical research. It covers all aspects of the subject from basic science to clinical management as well the broad areas of the epidemiology related to orthopaedic Rheumatology. The journal is a peer-reviewed official journal of IORA. The Journal will regularly provide Original, review, research articles along with case reports. . The increasing role of Orthopaedic rheumatology research will provide a platform for the authors to make their contribution towards the Journal.

Prof Dr Manish Khanna
Founder Secretary General IORA
Editor In chief JIORA

MESSAGE

Dr. Shantanu Lahkar

Organising Chairman

IORACON 2016

It gives me immense pleasure to welcome all of you to this 8th IORACON 2016 at Guwahati

I don't remember the exact date and time, I think around 10 years back, I received a call from a gentleman early in the morning to start a new chapter called IOA and we had a long discussion on this and both of us were very excited about the same. The gentleman who called me up was none other than Dr Manish Khanna. The concept of starting this Association was noble as Orthopaedic surgeons are more well equipped to treat Rheumatologic disorders in a better and different way from other specialities because an orthopaedic surgeon can not only write medicines but can also do operations in Rheumatologic disorders like total hip replacement surgeries, correction of different deformities which other cannot do.

We discussed about this Association time to time and in the year 2009 IORA officially became a super speciality association under IOA at Whitefield in Bangalore.

This was the beginning and after that The Association never looked back as it was under the great leadership of Dr. Manish Khanna who is the Secretary General of this association.

Also, Dr. S S Jha and Dr. Bhalla (Ex-Presidents of IORA) passed on the legacy of this Association to Dr. K S Rao who has been fulfilling the aim and objective of this Association with determination and dedication.

It was my great privilege to organise 3rd conference- IORACON at Shillong in the year 2011. It was highly successful one and later same conference was held at different places in the country.

Due to increase in no. of young and budding orthopaedic surgeons in the Northeast region, Dr. Manish Khanna again requested me to organise this national level conference at Guwahati which is the doorway of northeast part of the country.

I am thankful to Dr. Manish Khanna for having this faith and trust in me to organise national level conference for 2nd time as Organising Chairman.

I would also like to take this opportunity to convey my deep regards to organising committee of NEROSA for having this great collaboration with IORACON.

I am thankful to Dr. Manish Khanna for constantly guiding me in organising this event at Guwahati.
Special mention and thanks to Dr. Kabul Saikia (Ex-Principal of Guwahati Medical College), Dr. G S Borgohain, Dr. Bhaskar Borgohain, (Who was also Organising Secretary, IORACON at shilling 2011) Dr. Naba Pallav Chetia, Dr. Diganta Apurva Phukan, Dr. Satyajit Bora, Dr. Uttam Patwari, Dr. Jishnu Prasad Baruah, Dr. Nilim Deka and Dr. Chandan Dulakakhoria, and many of my senior and junior colleagues for their constant help and inputs.

Also, my sincere thanks to Joydev Nandi, Kaushik Baruah, Nivedita Boiragi from Archana Trauma and Orthopedic Hospital for going beyond their line of duty to help me out in organising this event.

I am also thankful to Amit Kapoor (my son-in-law) and Dr. Shanta Lahkar Kapoor (my daughter) for backing me up and encouraging me constantly for organising this great conference.

Thanks and Regards,
Dr. Shantanu Lahkar
Organising Chairman
IORACON'2016

Message from the Organizing Secretary

Dr Diganata A. Phukan

Organizing Secretary
IORACON-2016

It is my proud privilege to function as the organizing secretary of IORACON-2016 on behalf of the North-East Regional Orthopaedic Surgeons' Association (NEROSA) in hosting the 8th Annual National Conference of the Indian Orthopaedic Rheumatology Association on 22nd and 23rd October 2016 at Guwahati.

I thank IORA and its leadership for choosing at Guwahati, Assam in the North-East India for holding such a Prestigious National Conference. The theme of the conference is Stem cell therapy in Orthopaedic Rheumatology. I wish the academic programme will be able to reflect the latest trend in the management of Arthritis and other joint disorders.

I take this opportunity to welcome one and all to the North-East India and I hope that the conference will generate right kind of thoughts benefiting patients suffering from arthritis.

Wish the Conference a Grand Success.

Dr Diganata A. Phukan
Organizing Secretary
IORACON-2016

Date: 16/10/2016
Guwahati

North East Regional
Orthopaedic Surgeons Association

Dr. Satyajit Borah
President

Message

Rheumatologist treats musculoskeletal diseases and a more dedicated one probably concentrates much on autoimmune conditions. Little familiarity with basic rheumatology is imperative for every practicing orthopaedic surgeon. A Joint Replacement Surgeon can't ignore Ankylosing Spondylitis, Osteoarthritis or Rheumatoid Arthritis and likewise a Spinal Surgeon has to be familiar with Axial Spondyloarthropathies, Ankylosing Spondylitis etc.

NEROSA feels privileged to be associated with this all important meeting on Orthopaedic Rheumatology and we thank the Indian Orthpaedic Rheumatology Association for giving us the opportunity. The organising team under the leadership of Prof. SK Lahkar, Dr. DA Phukan and Dr. NP Chetia have put its best efforts to make an excellent scientific fiesta as well as a memorable social gathering. I believe all attending delegates will be benefitted immensely from the deliberations of the conference.
I also hope all visiting faculty and delegates will enjoy the typical Assamese hospitality in the background of excellent weather in the valley and I wish all of you a very pleasant stay here.

(Satyajit Borah)
President, NEROSA

Organizing Committee:
IORACON - 2016

Theme: Stem Cell Therapy in Orthopaedic Rheumatology

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Co-Chairman
Dr. Elambam K. Singh

Org. Secretary
Dr. Diganta A Phukan

Joint Org. Secretary
Dr. Bipul Borthakur
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Message from the Past President, IORA

IIt gives me great pleasure to learn that North-East Regional Orthopaedic Surgeons' Association is going to organize the 8th Annual Conference of the Indian Orthopaedic Rheumatology Association. I take this opportunity to convey my best wishes for the souvenir to be released on this solemn occasion. The local chapter of IORA and its leadership deserve congratulations for organizing such a conference at Guwahati, Assam.

Bulk of our OPD patients attending orthopaedic clinic / institution are suffering from joint pain. Most of them remain undiagnosed and are treated with principles of general pain management ultimately leading to disabilities. Majority of them are patients of Rheumatoid Arthritis.

Orthopaedic Surgeons definitely have to be updated at par with their physician Rheumatologists in managing these patients.

I am confident, this Souvenir being published on this occasion will be unique one, reflecting the latest trend in the management of Rheumatoid Arthritis.

I am thankful to the management and whole medical fraternity of North-East Regional Orthopaedic Surgeons'Association, its Organising Secretary's leadership for organizing this historical meet.

I feel honored to be associated in the capacity of the Patron, IORA with this event for the simple reason that it vindicates the stand for which this association was created.

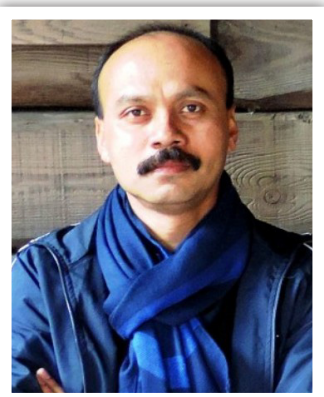
I strongly feel that Guwahati will show the path to other chapters of IOA to have a greater role to play in IORA.

I take this opportunity to convey my greetings and good wishes for the grand success of the conference and publication of the Souvenir. Under your expert guidance, I am confident that the deliberations would be of highest academic order and would lead to generate thoughts and ideas immensely benefiting patients of Rheumatoid Arthritis and other joint disorders.

Long live Indian Orthopaedic Rheumatology Association!

S. S. Jha
Patna, Bihar

Editor's Column



Our fight against arthritis related disability must continue through sharing of knowledge, commitment and advocacy to provide quality care

Dear Colleagues and Friends,

On behalf of the Organizing Committee, I extend a warm welcome to you to Guwahati, Assam during IORACON-2016; the Annual Conference of Indian Orthopaedic Rheumatology Association held in the North-Eastern Region . The Conference is being organized by IORA with support from NEROSA. I thank the organizing committee for giving me the responsibility to take out the proceedings of IORACON-2016 in black and white.

The aim of this conference is to improve the quality of care to arthritic patients through sharing of knowledge, commitment and advocacy. With this objective we hope to congregate the arthritis care givers of the country. The academic faculty comprises of renowned physicians and speakers ensuring fruitful exchange of ideas, opinions and experiences to update the present body of knowledge and wisdom for better management of arthritis and related disorders in terms of evidence based practices, cost-effectiveness and safety for Indian patients.

So, enjoy a rich scientific session and experience the warmth of Assam and the North-East.

Dr. Bhaskar Borgohain
Editor, IORACON proceedings
IORACON-2016

SCINETIFIC SCHEDULE OF IORACON-2016, GUWAHATI ASSAM

IORACON - 2016

22nd October, 2016

8 am to 9 am	Registration	
SESSION I 9 am - 10 am	**INFLAMMATORY ARTHRITIS - What one should not miss.** **Chairpersons : Prof. Dr. Kabul Saikia, Prof. Jagannath Sahoo**	
9 am - 9.10 am	Rheumatoid Arthritis- How Early is Early	Dr. Pradip Sarma
9.10 am - 9.20 am	Two-step Diagnostic Strategy in Rheumatology - How to proceed for examination	Prof. S. S. Jha
9.20 am - 9.30 am	Mono Arthritic joint must not be missed.	Prof. A. S. Rao
9.30 am - 9.40 am	Rheumatoid Arthritis and Pregnancy.	Dr. S. M. Baruah
9.40 am - 9.50 am	Role of Biosimilars in inflammatory arthritis.	Dr. (Mrs) M. P. Das
9.50 am - 10 am	Stem cell therapy in Autoimmune diseases - RA.	Dr. Senthil Thyagarajan
SESSION II 10 am - 11.30 am	**STEM CELL THERAPY IN ORTHOPAEDICS** **Chairperson : Prof. Manish Khanna, Dr. Bhaskar Borgohain**	
10 am - 10.10 am	Our body harbors reservoir of stem cells.	Dr. Nedun
10.10 am - 10.20 am	Growth Factors in Musculoskeletal diseases.	Dr. Shankarnarayan
10.20 am - 10.30 am	Single point or multiple puncture Bone marrow aspiration.	Dr. Ravi
10.30 am - 10.40 am	Cartilage and Soft tissue repair.	Dr. Karun Jain
10.40 am - 10.50 am	Ethical Issues in different stem cell approaches.	Dr. Ravi
10.50 am - 11 am	Osteonecrosis of Bone and stem cell.	Dr. Shankarnarayan
11.am - 11.10 am	Role of Stem cells in Ortho- neurological conditions.	Dr Mahajan Dr Prabhu Misra
11.10 am - 11.20 am	Hyperbaric Oxygen Therapy has positive role in Stem cell activation- An overview.	Dr. A. P. Suri
11.20 am - 11.30 am	**DISCUSSION (10 MINUTES)**	
11.30 am - 12 noon	**TEA BREAK**	
SESSION III 12 noon - 12.30 pm	**IORA ORATION** **Chairperson Dr. A. D. Rao**(President, IORA), **Dr. Manish Khanna**(Secy. IORA)	
12 noon - 12.30 pm	Mesenchymal stem cells in Degenerative Joint Diseases Global Safety and Efficacy.	**Dr. William Murrel** (USA)
SESSION IV 12.30 pm - 1 pm	**INDIAN STEM CELL STUDY GROUP (ISCSG) SESSION.** **Chairpersons - Prof. Dr. Pranjal Tahbildar, Prof. Rajiv Naik**	
12.30 pm - 12.40 pm	Introductory Remarks	Dr Manish Khanna, (Convener, ISCSG)
12.40 pm - 12.50 pm	Protocol for Rheumatoid Arthritis for Clinical Trials.	Dr. Ravi
12.50 pm - 1 pm	Panelist : Dr. Khanna, Dr. Prabhu, Dr. Mahajan, Dr. Shankarnarayan	
1 pm - 2 pm	**LUNCH BREAK**	

An Introduction of the International Guest Speaker:

William D. Murrell, Jr. M.D., M.Sc.

William D. Murrell, Jr. M.D., M.Sc., is a specialist orthopaedic surgeon sub-specialized in orthopaedic sports medicine and surgery of the shoulder and knee. He has been the President of the American Musculoskeletal Wellness Institute, Bethesda, Maryland, USA, and served as the Director of Sports Medicine at the Dubai Bone and Joint Center, Dubai,UAE.

He is an alumnus of **University of Tennessee** Knoxville in Organic Chemistry before obtaining his Medical School Degree from **Temple University School of Medicine** Philadelphia. He completed his residency at **Tulane University, New Orleans, USA.**

He later studied in **Harvard** Business School Executive Education (Business Innovations in **Global Health Care**). He served as a Consultant to AAOS (American Association of Orthopaedic Surgeons) International Committee 2012. He is in the advisory Board of Journal of Bone and Joint Surgery (Br) International and American Journal of Sports Medicine

Currently is Specialist Orthopaedic Sports Medicine at Dr. Humeira Badsha Medical Center, **Dubai, UAE**. He has published many important scientific articles in reputed journals and delivered numerous lectures across the globe on **Regenerative Medicine** applied to orthopaedics and sports medicine.

IORACON - 2016

22nd October, 2016

1 pm - 2 pm	**LUNCH BREAK**	
SESSION V 2 pm - 3.15 pm	**OPERATIVE ARTHRITIS** **Chairperson: Prof. Dr. S. Bhuyan, Prof. Sunramanyam**	
2 am - 2.10 pm	Spine in Rheumatoid Arthritis	Dr. Chinmoy Das
2.10 pm - 2.20 pm	Arthritic Hands - Role of Surgery	Dr. Partha Pratim Dutta
2.20 pm - 2.30 pm	RA Elbow.	Dr. Dileep Mazumdar
2.30 pm - 2.40 pm	Inflamatory Arthritis- Tips & Tricks of Arthroplasty.	Dr. Pranjal Mahanta
2.40 pm - 2.50 pm	Autologous Chondrocyte Implantation in Full thickness cartilage damaged knees.	Dr. Prabhu Misra
2.50 pm - 3 pm	Arthritic Feet- Role of Surgery.	Dr. Chandan Nag Choudhury
3 pm - 3.15 pm	**DISCUSSION (15 MINUTES)**	
SESSION VI 3.15 pm - 4.20 pm	**REGENERATIVE SCIENCE: A HOPE IN OSTEONECROSIS** **Chairpersons - Prof. R. Bhalla, Dr. S. K. De**	
3.15 am - 3.25 pm	Etiology & Management of Osteonecrosis.	Dr. Rajeev Naik
3.25 am - 3.35 pm	Segmental collapse in United fracture Neck femur : Is it a mechanical failure rather than vascular insult.	Dr. Ranjit Kr. Baruah
3.35 am - 3.45 pm	Impaction Bone Grafting in osteonecrosis of the femoral head.	Dr. G. S. Borgohain
3.45 pm - 3.55 pm	Perthes Disease.	Prof. Jagannath Sahoo
3.55 pm - 4.05 pm	Stem cell and AVN.	Dr. Pradeep Mahajan
4.05 pm - 4.20 pm	**PANEL DISCUSSION (15 MINUTES)**	
SESSION VII 4.20 pm - 5 pm	**INTERESTING CASE DISSUSSIONS** **Moderator : Dr. G. S. Borgohain, Dr. Bhaskar Borgohain**	

END OF DAY 1

IORACON - 2016

23rd October, 2016

SESSION I 9 am - 9.40 am	**OSTEOPOROSIS** **Chairpersons: Prof. Gyaneshwar Tonk, Dr. U. C. Sarma**	
9 am - 9.10 am	USG in Osteoporosis.	Dr. A. P. Singh
9.10 am - 9.20 am	Conventional Therapy in Osteoporosis, its impact.	Dr. Bipul Borthakur
9.20 am - 9.30 am	The Role of Teriparatide, Case selection.	Dr. Neelakhi Deka
9.30 am - 9.40 am	Fracture Fixation in Osteoporotic Bone	Dr. Iran Bharali
9.40 am - 9.50 am	Osteoporotic vertebral compression fractures.	Dr. Nitu Borgohain
9.50 am - 10 am	**PANEL DISCUSSION (10 MINUTES)**	
SESSION II 10 am - 10.50 am	**KYE NOTE LECTURES** **Chairperson: Dr. A. S. Rao, Dr. Satyajit Borah**	
10 am - 10.10 am	Tips we must know in Orthopaedic Rheumatology.	Dr. Mir
10.10 am - 10.20 am	Problems of decision making in Management of Arthritis.	Dr. S S Jha
10.20 am - 10.30 am	Why Ortho Rheumatological cases are difficult to manage-Our way of Fixing	Dr. M Khanna
10.40 am - 10.50 am	Stem Cell Therapy in Orthopaedics.	Prof. Jagannath Sahoo
10.50 am - 11 am	**PANEL DISCUSSION (10 MINUTES)**	
11 am - 11.30 noon	**TEA BREAK**	
SESSION III 11.30 am - 12.30 am	**AROUND THE ORTHOPAEDIC RHEUMATOLOGY** **Chairpersons : Dr. Dilip Ghosh, Prof Dr. S. Rastogi**	
11.30 am - 11.40 am	Pagets disease.	Prof. Jagannnath Sahoo
11.40 am - 11.50 am	Newer insights in Charcots Foot	Dr. A. P. Suri
11.50 am - 12 noon	Gouty Arthritis: An overview.	Prof. Shantanu Lahkar
12 noon - 12.10 pm	Synovial chondromatosis.	Prof. Gyaneshwar Tonk
12.10 am - 12.20 pm	Soft Tissue tumors: An Approach	Prof. S. Rastogi
12.20 am - 12.30 pm	Evidence based approach of Hyperbaric Oxygen therapy in Orthopaedics specially in Non healing ulcer.	Dr. A. P. Suri
SESSION IV 12.30 pm - 1.30 pm	**IORA GOLD MEDAL SESSION (Free papers for under Forty)** **Chairpersons : Dr. S. S. Jha, Dr. A. P. Singh**	
1.30 pm - 2.30 pm	**LUNCH BREAK**	
SESSION V 2.30 pm - 2.50 pm	**DEBATE ON OSTEOARTHRITIS** **Chairpersons : Dr. Mir, Dr. Diganta Phukan**	
HTO IS BETTER IN OUR SITUATION COMPARED TO UNICONDYLAR KNEE REPLACEMENT		
2.30 pm - 2.40 pm	For the Motion	Dr. Pranjal Tahbildar
2.40 pm - 2.50 pm	Against the Motion	Dr Jitendra Chaudhary
SESSION VI 2.50 pm - 3.30 pm	**MEET THE MASTERS - CASE BASED PANEL DISCUSSION** **Chairpersons : Dr. E. K. Singh, Dr. Gautam Choudhury**	
2.50 pm - 3 pm	Identification of Regional Pain syndrome : Pain management.	Dr. Bibhash
3 pm - 3.10 pm	PEARLS OF OATS (Video presentation)- Management of Chondral defects.	Dr. Moazzam Jha
3.10 pm - 3.20 pm	Percutaneous Distension hydrofibrolysis of shoulder in Adhesive capsulitis-A quick and definitive solution	Prof. Krishna Subramanyam
3.20 pm - 3.30 pm	Arthroscopic synovectomy of the Knee in RA	Prof. Krishna Subramanyam
SESSION VII 3.30 pm - 4.30 pm	**OSTEOARTHRITIS OF THE HIP AND KNEE** **Chairperson Dr. Ashok Tyagi, Prof. Dr. S. K. Purakayastha**	
	Newer drugs promoted for OA:What is the evidence?	
3.30 pm - 3.45 pm	Type II Collagenpeptide in OA.	Dr. Gyaneshwar Tonk
3.45 pm - 4 pm	The Role of Teriparatide, Case selection.	Dr. Neelakhi Deka
4 pm - 4.15 pm	OA in Young Adult: A Challenge for all	Dr. A. S. Rao
4.15 pm - 4.30 pm	Drugs promoted for OA - What is the eveidence?	Dr. Anil Mahanta
4.30 pm - 4.45 pm	Visco - supplementation in OA.	Prof. Shantanu Lahkar

END OF DAY 2

Monarticular Joint should not be missed

Dr.A.Srinivasa Rao
President, IORA

Classical Rheumatoid Arthritis is polyarticular. The Monarticular form can be a prelude to polyarticular form or remain monarticular for some time. When only one joint is involved the rheumatological etiology may be missed and the diagnosis is difficult. A high degree of suspicion is needed.

If trauma and periarticular inflammation are excluded, the dictum shall be that acute monarthritis is infection until proved otherwise because the consequences are disastrous.

Monarthritis may be seen in a child or adult either in acute or chronic form. Causes of acute monarthritis in a child are Hemophilia, acute Leukemia, reactive arthritis, rheumatic fever or monarticular form of JIA. Causes of acute monarthritis in an adult are Gout, pseudogout, acute manifestation of OA, reactive arthritis or monarticular presentation of polyarthritis. Causes of chronic monarthritis in a child are Tuberculosis, synovial tumours or oligoarticular JIA. Causes of chronic monarthritis in an adult are Tuberculosis, PVNS and other synovial tumors, or monarticular rheumatoid.

Analysis of the above lists shows that rheumatological condition is common. The diagnosis is difficult and is often by exclusion of other conditions. Systemic diseases like Psoriatic arthritis and reactive synovitis can present as monarthritis. It is not uncommon that non-specific monarticular synovitis may be the initial presentation of Rheumatoid disease.

Arthrocentesis is an important diagnostic procedure. More than 2000 cell count and less than 50,000 signifies inflammatory arthritis. Microscopy of synovial fluid can detect crystal synovitis and infection. Synovial biopsy may help in diagnosis by showing lympho-plasmacytic aggregates.

To conclude while dealing with acute or chronic monarthritis in a child or adult one has to keep in mind Rheumatological condition in order not to miss the diagnosis. Diagnosis may be arrived at by exclusion of other conditions.

Osteoarthrits in the Young Adult – A challenge

Dr.A.Srinivasa Rao
President, IORA

According to WHO report, osteoarthritis (OA) affects about 70 million Indians. Once considered an old age disease, OA now afflicts middle aged professionals too. OA in young adults less than 50 yrs of age is a dilemma why it occurs and a challenge how to manage.

Advances in the last two decades helped understanding the disease regarding its heterogeneity, Risk factors and etiopathogenesis. There are cases with minimal OA of Knee proper but marked patello-femoral OA. Symptoms and radiology sometimes do not correlate. Now we understand that OA is a disease not only of the articular cartilage but of whole joint including subchondral bone and soft tissues. Among risk factors, Obesity and Genetics seem to play a great role. Genetically mutation of type II collagen and cartilage molecules increases fragility of cartilage. Further there are cases which clinically and radiologically look like OA but histology reveals inflammation. Thus inflammation is also a possible cause of early OA.

Current goals are early detection of OA by radiology and Biochemical markers and to develop Disease Modifying Osteoarthritic Drugs (DMOADs). Radiological signs of early OA are Tibial spine spiking and subchondral sclerosis of medial tibial condyle. The basis of biochemical markers is that degradation products of Bone, Cartilage and Synovium are liberated into the joint space as Macromolecules which are potential markers of joint disease. From the joint space they are absorbed into the circulation and excreted in urine. Thus the Biomarkers may be measured in synovial fluid, blood or urine.

The basis of development of DMOADs is that the degradation products of articular cartilage are excreted into the synovial fluid and are absorbed by synovial cells and macrophages which in turn liberate pro-inflammatory cytokines like IL-1B etc. which promote cartilage destruction. Simultaneously, Synoviocytes and Chondrocytes liberate Matrix metalloprotease, IL-8 and Nitric Oxide etc. which again promote cartilage destruction. The disease modifying OA drugs are developed to act on the pro-inflammatory cytokines, Interleukins, MMP and NO and prevent cartilage destruction. The DMOADs target synovial inflammation, cartilage destruction and subchondral bone remodeling. Diacereine, now available in the market, acts as a cytokine inhibitor. Alendronate inhibits subchondral bone edema and remodeling.

Regarding management, in the young OA patient the demands are more and expectations are high. Conservative treatment includes early detection and use of DMOADs like Diacereine and Alendronate; medial joint unloading braces, exercises and intra-articular visco-supplementation by high molecular weight & cross linked sodium hyaluronate. The efficacy of newer molecules like Aflapin, Oxaceprol and Univestin is doubtful. Glucosamine is proved to be ineffective in the treatment of OA.

Surgical management of OA consists of high tibial osteotomy (HTO), Arthroscopic lavage, Cartilage replacement (Autologous cartilage implantation, Mosaicplasty, Microfractures) or joint replacement using Oxinium implant. Unicondylar joint replacement is also tried.

Medical Law & Ethics in India

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"Though a physician is not bound to treat each and everyone for his services except in emergencies, for the sake of humanity and the noble traditions of the profession, he should not only be ever ready to respond to calls of the sick and the injured, but should be mindful of the high character of his mission and the responsibility he incurs in the discharge of his professional duties. In his ministrations, he should never forget that the health and the lives of those entrusted to his care depend upon his skill and attention."

Medical ethics –the moral principles for registered medical practitioners in their dealings with each other, their patients and Nation.

- Important thing to do for a doctor is to obtain proper consent of the patient / attendant / relative.
- The term 'consent ' is defined thus : When two or more persons agree upon the same thing in the same sense they are said to consent as per the definition of 'consent ' given in section 13 of Indian Contract Act, 1872.
- Who can give consent: For the purpose of clinical examination diagnosis and treatment consent can be given by any person who is conscious, mentally sound and is of and above twelve years of age as provided under sections 88 and 90 of the Indian Penal Code, 1860.
- The degree of skill a Medical Practitioner undertakes is the average degree of skill possessed by his professional brethren of the same standing as himself.
- The best form of treatment may differ when different choices are available.
- There is an implied contract between the Medical Practitioner and the patient when the patient is told in effect: "Medicine is not an exact science. I shall use my experience and best judgment and you take the risk that I may be wrong. I guarantee nothing."

Role of Indian Medical Council

- Recognition of medical qualification & Recognition of foreign medical education
- Supervision of undergraduate and post graduate medical education
- De-recognition
- Medical register
- Warning notice, Appeal against disciplinary action

"How to Prevent Fractures ...!"

Ultrasound of the heel: a novel yet much under-rated method in testing bone density

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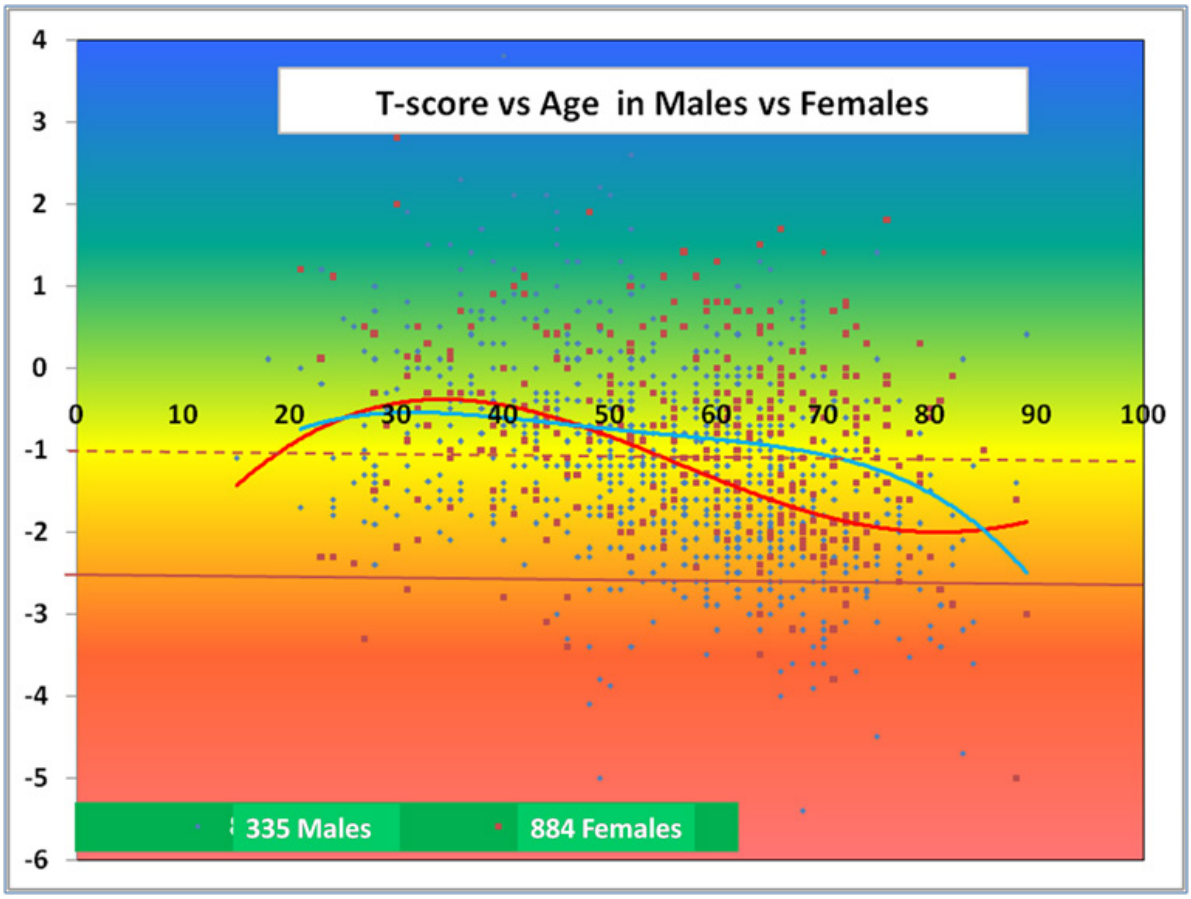
The medical world is likely to face an epidemic of hip fractures and other major osteoporosis-related health problems in the elderly population by 2050(1, 2, 3). The old are likely to consume a majority of the health allocated funds many-fold as they are going to live longer and most other health problems would be better managed.

The reason why osteoporosis will not be taken seriously is because most orthopaedic surgeons are and will continue to remain busy fixing fractures and replacing old knees. A highly specialised and super-speciality oriented medical fraternity is hardly addressing preventive health, much of which needs to be directed at creating awareness in patients, health personnel and doctors of different specialities at a grass-root level of education. The other segments who can help treat are physicians or internal medicine specialists, whose hands are always full with the multiplicity of medical problems existing.

Health checks promoted by corporate hospitals and overseen by physicians miss out on managing osteoporosis effectively as the plethora of medical tests flood the field pushing the issue of preventing fractures to one corner. Patients with borderline osteopenia and no symptoms miss out in these check-ups. Endocrinologists & Rheumatologists who could help are rarely referred to in these checks as they form a small minority and in any case far too few of them are available even in the so-called medical hub of a city like Gurgaon.

It is a different matter of course, that the large majority of middle class and the under-privileged, will rarely consider going to a private hospital not catering to the charitable or low income group of patients. These do not have the option or benefit of undergoing an expensive test for Bone Density needed to diagnose osteoporosis, more so as they would not likely opt to come to a doctor for a test if they have no symptom.

Osteoporosis, we all know, has no obvious symptoms (4). The signs are few and unrecognized, but the target segment is the early post-menopausal female, the thin built, starved or women suffering from anorexia nervosa, the multiparous female or the non-menstruating, young athlete. There are many more features, and a description can take a long chunk of space. But suffice to say, an awareness drive or regular screening check is needed for all females starting from the 30's and males too for that matter. I suggest a special bone density clinic visit to most people seeing me for any orthopaedic or other health related problem. Their healthy attendants are also encouraged to join the test.



A bone density check using an ultrasound device (5) measures the speed of sound (SOS) and the impedance (BUA) and factors them into a stiffness index (SI). The same is expressed in the common terms used to express the test reports as Osteoporosis, Osteopenia and Normal, using T-scores & Z-scores. T-score is Normal if it is > -1.0 meaning less than one standard deviation of a healthy adult girl of 20 years obtained from the data base stored in the software used for the report; a T-score between -1.0 & -2-5 indicates Osteopenia, ie for a standard deviation 1 to 2.5 times less than normal ; a T-score below (<) -2.5 indicates Osteoporosis, meaning the patient's test shows bone density 2.5 standard deviations less than that for a normal person. The Z-score is also useful, but not usually relied on to check one's Bone Density; it measures the bone density comparing one to another normal person of the same age group.

In favour of using the Ultrasound machine for checking Bone Density, one can put forward the following reasons, especially relevant when needed to screen large segments of population.

1. It is a cheaper, portable& safer machine (it does not use x-rays) to use, (6, 7 ,8) compared to the Dexa-scan quoted as the Gold Standard test for checking Bone Mineral density. For this matter, there are possibly far many more ultrasound heel and other devices available compared to the number of Dexa-scanners. This is apparent as such routine check-ups using Ultrasound are far more frequent with increasing public awareness.

2. The tests results are reasonably accurate and reproducible, provided the method is standardised, and the same machine is being repeatedly used, by the same technician as far as possible. The

test should be repeated on a few regular members available to the centre organising the test, to ensure reproducibility of results. (12)

3. The test report obtained by using the Ultrasound or even the Dexa-scanner cannot be used to decide treatment taken without considering a host of other factors termed as 'Risk Factors' (9, 10, 11, 12) obtained only by a careful assessment of the patients clinical symptoms obtained from history and signs by physical examination. The factors include Age, Sex, Menopausal status and age at menopause, diseases like Diabetes, Rheumatoid, Liver, Kidney, chronic GIT, Thyroid or Gonadal problems, use of medications like steroids, anti-epileptics, anti-convulsants, antacids, positive family history of osteoporosis and trivial trauma fractures, recent frequent falls, a positive Chair test (difficulty in getting up from sitting without support), history of an insignificant (trivial or minor) injury causing a fracture in the hip, spine or wrist or any part of the body. The signs include loss of height (>1" to 2"), progressive frailness or loss of weight, and evidence of unreported old injuries like deformities in the wrist, stoop, tenderness in the back in a recent unrecognised fracture of the Dorsal or Lumbar spine, and even a lower limb, which seems shorter, and gait with one limb turning outward in a 'Chaplinesque' manner.

Osteoporosis is an eminently treatable problem, needing widespread community awareness. It has been reported that 70% of the people who are suffering from osteoporosis could prevent a fracture if treated properly from an early stage.

Early diagnosis forms the most important aspect in treating osteoporosis. As orthopaedic surgeons, we are all too aware of the abysmal success rate and the phenomenal cost involved in managing a fracture particularly in the elderly. It only seems reasonable if we can say "Prevention is Cure"

REFERENCES

1. Norris RJ. Medical costs of osteoporosis. Bone 1992;13(suppl 2):S11–S16.
2. Johnell O. The socioeconomic burden of fractures: today and in the 21st century. Am J Med 1997 Aug 18;103(2A):20S-25S; discussion 25S-26S.
3. Cauley JA, Thompson DE, Ensrud KC, Scott JC, Black D. Risk of mortality following clinical fractures.OsteoporosInt 2000;11:556–561.
4. John A. Kanis, L. Joseph Melton, Claus Christiansen et al. The Diagnosis of Osteoporosis. Journal Of Bone And Mineral Research. 9(8), 1994; 9:1114– 1137
5. Felicia Cosman, MD, Chair, National Osteoporosis Foundation. CLINICIAN'S GUIDE TO PREVENTION AND TREATMENT OF OSTEOPOROSIS- 2014
6. Alireza Moayyeri, Stephen Kaptoge , Nichola Dalzell et al. Is QUS or DXA Better for Predicting the 10-Year Absolute Risk of Fracture? Journal of Bone and Mineral Research. 24(7), 2009. Available online http://www.iscd.org/documents/2014/10/nof-clin-guidelines.pdf last accessed october 5, 2016
7. Robert S. Siffert , Jonathan J. Kaufman. Ultrasonic bone assessment: "The time has come" Bone. 2007 ; 40(1): 5–8.
8. N. Dutta , A. M. Saikia, A. Moyee et al. Status of bone mineral density in adult population using calcaneal ultrasound bone densitometer: A study from Assam. Indian Journal of Basic and Applied Medical Research 2015; 4(3), 150-158
9. Idris Guessous, MD, Jacques Cornuz, MD, MPH, Christiane Ruffieux, PhD, Peter Burckhardt,MD, Marc-Antoine Krieg,MD., Osteoporotic Fracture Risk in Elderly Women: Estimation with Quantitative Heel US and Clinical Risk Factors. Radiology 2008: 248(1)
10. Moayyeri A, Adams JE, Adler RA, Krieg MA, Hans D, Compston J, Lewiecki EM Quantitative ultrasound of the heel and fracture risk assessment: an updated meta-analysis. Osteoporos Int 2012 ;23(1):143-53
11. Bauer, Douglas C., et al. "Broadband ultrasound attenuation predicts fractures strongly and independently of densitometry in older women: a prospective study. Archives of internal medicine 157.6 (1997): 629-634.
12. AP Singh,Dipali Das, Vandana Singh et al "USOFRA study using QUS Ultrasound of the heel bone to detect osteoporosis demonstrating height loss as a vital risk factor in women. Journal of Indian Orthopaedic Rheumatology Association 2016; 2(1): 1-8

Cellular Signaling during Bone Regeneration

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Orthopedic reconstructive technologies and microvascular surgical techniques for large bone defects are challenging and frequently result in suboptimal outcome.Major obstacle orthopaedic surgeons face is to treat and reconstruct large bone defects, delayed unions and non-unions. Therapeutic modalities have been developed to enhance the healing response and fill the bone defects butthere are significant limitations, and still there is no approved treatment modalities. Development of customize treatment strategy to achiev a successful healing, understanding the complexcity of bone injury, healing process and knowledge of the signeling factors involved are necessasary. Regenerating boneis diverse processes such as wound healing, stem cell proliferation, dedifferentiation, and cell death.Importantly, newly regenerated bone tissue must integrate polarity and positional identity with preexisting bone structure. Furthermore, detailed knowledge about regulation of signaling mechanisms in different cell types and molecular consequences of cell interactions will help to heal the bone defects inside the body. It is of utmost importance to understand the function of growth factors, cytokines and hormones and their involvement with endogenous signals that drive stem cells into osteogenic differentiation. Hence, this review highlites how the bone fractures heal through cross-activation and complex signaling of these molecules. This article is anattempt to provide useful information to orthopaedic surgeons working in the field of bone healing.

Problems of Decision Making In Management of Arthritis

Dr S S Jha
Mahavir Vaatsalya Aspatal, Patna

During past 20 years, treatment of arthritis has experienced significant progress. Early intervention with DMARDs has greatly improved arthritis management. With discovery of new pathways and therapeutic targets, we can only expect more growth in this drug category including use of biologics reversing the current trend.

Two-step Diagnostic Strategy in Rheumatology

Dr S S Jha
Mahavir Vaatsalya Aspatal, Patna

Just as all roads lead to Rome, many routes can be followed to reach exact diagnosis depending on pre-dominant manifestations in a systemic disease. One should not skip any of the stages of the disease without running the risk of making a mistake. Diagnosis of the syndrome and disease itself always requires a thorough well-planned questioning and it may not be possible and it is not possible without a careful and general examination of all the areas with presenting symptoms.

Role of collagen 2 peptide in osteoarthritis knee

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Osteoarthritis is the most common form of joint disease which primarily involves weight bearing joints. Degeneration of the articular cartilage and changes to the subchondral bone at the joints subsequently decreases the quality of life of the patients. Lots of pharmacological agents have been tried for the medical management of this disease but none has been found to modify the disease effectively.

Collagen peptide is a major constitute of cartilage connective tissue.it has unique triple helix configuration with a repeating amino acid sequence (glycine-proline-hydroxyproline¬) respectively. Hydrolysed form of collagen is known as collagen hydrolysate(CH) obtained by the enzymatic hydrolysis of collagenous tissue from mammals. The main structure of CH is identical to collagen-2 peptide. Bioactive collagen peptide (active form of collagen like collagen hydrolysate) is claimed to be effective by many researchers but the evidence in support of chondroprotective evidence is very limited. We have conducted an animal study to analyse the chondroprotective effect of collagen 2 peptide in chemical induced osteoarthritis knee in albino rats.

We concluded from our study that the bioactive collagen is a potent chondroprotective agent and its action is superior to the action of diacerin, which is also used in the treatment of osteoarthritis as disease modifying agent.

Segmental collapse in united fracture neck of thefemur: Is it a mechanical failure rather than vascular insult

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Introduction: Development of avascular necrosis (AVN) offemoral head despite advanced methods of fixation brandsfracture neck femur as unsolved. Acetabular runway andfemoral head are not perfectly circular; mal reduction in anyplane produces incongruity predisposing to degenerative changes, like fragility and attenuation. Considering this,Garden (1971), while studying in a larger number ofcases doubted the role of ischaemia as cause of segmentalcollapse and put forwarded a biomechanical factor forsame. Late appearance of such changes in united fracturesalso strengthens this doubt. With this concept in mind,we have retrospectively evaluated intracapsular fracturesof neck femur and correlate X-ray findings of valgusmalreduction to development of AVN changes.Materials and Methods: 100 fresh intra capsular fracturesof neck femur, who underwent internal fixation, between 1994and 2010, were evaluated retrospectively. There were 12, 10,58, 20 cases in Garden Stage 1, 2, 3, 4 respectively. Therewere 72 males and 28 females with age range of 27–55 years.All cases sustained fracture following simple fall. Two types ofimplants were used; multiple cancellous screws (n = 52) andDHS with derotation screw (n = 48). Immediate postoperativeX-ray was evaluated to find out valgus malreduction asconfirmed by Lateral Wedging of Joint space, Uncovering ofFemoral Head, Cupid's Bow sign. Garden Index was unreliabledue to the presence of implants. X-rays of the patients at 2 yearswere further evaluated to detect AVN.Results: Out of 100 cases, 88% united; 16% of these casesshowed AVN changes. Presence of implants made GardenIndex unreliable in all cases whereas other signs werereliable to showcase valgus malreduction. Out of total casesof AVN, valgus malreduction was found to be in 93% cases.Conclusion: Although small in number, study reveals thepossibility to look into so called AVN changes of femoralhead after fracture neck of femur in a biomechanicalperspective rather than vascular one.

Keywords: Femoral neck fracture, AVN, segmentedcollapse, ununited fracture neck femur

The Role of stem cells in orthopedics: cartilage, ligament & soft tissue repair

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Application of 'regenerative medicine' in orthopaedic practice has aroused a new ray of hope among surgeons. Myriads of orthopaedic conditions with limited therapeutic options could be benefited with technologies developed in regenerative medicine. In Orthopedics, considerable benefits have resulted from the biomechanical solutions in the past 50 years, with better biomaterials and implants for joint replacements, more precise instrumentation and computer-aided navigation techniques. However, implants have a finite lifespan owing to loosening or other modes of failure and may require further surgery involving increased morbidity for the patient. The future lies in regenerative medicine, with the potential to grow new tissues and organs to replace damaged or diseased ones by utilising stem cells, which have the capacity to self-renew and differentiate into many different types of tissue. Although this area of research holds infinite promise, it is also influenced by scientific, ethical, moral and political controversies. The bone and cartilage regeneration ability of stem cells have been demonstrated clinically, but the tendon regeneration capability is still in the experimental stage.

Most common use of stem cell therapy in current orthopaedic scenario is in fracture non union & delayed union, Gap union, avascular necrosis, cartilage defects, arthritis of knee & Rheumatoid arthritis, tendon & ligament injuries, spinal fusion & disc lesions and few congenital orthopedic anomalies. Stem cell therapy looks to be an appealing new option but the studies documented so far have shown failures as well as successes. This is an evolving aspect of Orthopaedics & many more long-term prospective randomised human trials need to show good results before the use of these cells can be recommended to all.

The Role of stem cells in orthopedics: cartilage, ligament & soft tissue repair

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Protocol for IORACON

1 The annual conference of the association should be held once a year preferably in March/April.The venue and date of the annual conference should be decided one year in advance by majority of vote in GBM of last conference.

2 The association will prepare a "Guide line" for holding annual conferences which would be amended when ever required by simply majority vote in General Body meeting.

3 Members desirous to hold Annual conference in his place will apply to Secretary General in writing at least one month before the annual conference of the previous year . The organizing secretary shall be a member of the association and preferably of the place of the venue decided.

4 The annual conference should be of two days in duration. The first day shall have inaugural function, IORA Oration ,Guest Lectures ,Workshop and scientific sessions. The executive committee meeting shall be held on the first day. The second day should have IORA Gold medal session, PG Quiz ,Scientific sessions and General body meeting. The valedictory function shall be immediately after the general body meeting.

The criteria of IORA Gold medal paper:

1. Presenter should be life member of IORA
2. Should be under Forty age group.
3. Work should not be published anywhere & should be Original work.
4. The winner should submit the paper for publication in IORA Journal. It will be appreciated if other presenters can also give their paper for publication.
5. Certificate of attendance /Paper presentation should be issued under signature of thr President ,Secretary General, Organizing Secretary.
6. If funds permit ,the organizing Secretary shall present a momento to the Chairpersons and speakers.
7. After the conference is over the account will be audited by Chartered Accounted. The audited account will be presented to the executive committee for approval .Half the saving of the conference will go to the IORA .This saving will be used in various academic activities like in Journal Publication and as Travelling allowances in the Fellowships.

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