

President's message

Cochin orthopaedic society as an academic body is the most vibrant club in our state and we are the largest club conducting CMEs in all sub specialities in orthopaedics. With very dynamic young orthopaedic surgeons and highest level of academic talents our members are invited as faculty in most of the conferences. As you are aware our club members bagged four gold medals in the last IOACON , a unique achievement.

I would like to congratulate all the club members for participating in CIOS 2019 and making it a grand success.

This news letter should be used to showcase the activities of our club members. Please Mail the academic and non academic activities of all members so that it can be published in the next news outlet.

Bringing out this news letter, the first of this kind in our state COS is again making history in Kerala orthopaedic association.

Jai COS
Dr Chandra Babu.

Secretary's Message

Respected teachers, seniors and dear friends,
I bring you warm wishes from the Cochin Orthopaedic Society COS year 2019 started with great enthusiasm and under the vibrant leadership of Prof. K.K. Chandrababu.

Every member of our COS is busy with the implementation of this year's unique Presidential Action plan, which is "Academics, Academics and Academics". COS is the single largest Orthopaedic Society in the state with 270 members. Our members participated in various international, national and regional CMEs both as eminent faculties as well as delegates and bagged many awards. Various CME s were also held. Congratulations to the entire CIOS- 2019 team for the excellent conduction of our 2nd International Orthopaedic Summit and soft cadaveric workshop.

I am happy to inform you that we are also starting a news letter for our members to publish their papers, academic and non academic activities. Dr. Divya will be the Chief Editor and Dr. Balu C. Babu will be the co-editor. I am humbly requesting you all to send papers to COS for including in the upcoming editions.

Last year we were the winners of KOA premier league. Now its time for next cricket season. I request our team captain Dr. Tom Jose and team for start warming up and have fantastic cricket to retain the Cup in COS. I request all my dear Teachers , Seniors and friends to continue your support for the smooth functioning of cos.

Jai COS
Dr. Sudheer Shareef



THE COCHIN ORTHOPAEDIC SOCIETY

Dr. Chandra babu K K
Hon. President

Dr. Sudheer Shareef
Hon. Secretary

Dr. Sujit Jos
Hon. Treasurer

Dr. Rajesh Simon
Imm Past President

Dr. Suresh Paul
Vice President

Dr. Venugopal R
Imm Past Secretary

Dr. John T John
Chairman Long Term Planning

Executive Committee Members
Dr. Paulose T Y
Dr. Riju R

Dr. Jiss Joseph Panakkal
IT Secretary

Exofficio Committee Members
Dr. Cheriyan Kovoov C
Dr Sabin Viswanath
Dr. Dennis P Jose

OSTEOPOROSIS- MANAGEMENT

Dr V K Bhaskaran

Professor, Department of Orthopaedics
Amrita Institute of Medical sciences and research centre

Osteoporosis is the most relevant musculoskeletal disorder encountered in the present century. 44 million Americans are affected by this disease and it may go higher up to 61 million in 2020.

Osteoporosis is defined as systemic skeletal disease characterised by low bone mass and micro architectural deterioration with bone tissue with increase in bone fragility and susceptibility to fractures. It is the only disease which affects every human being who lives beyond the age of 35 years.

Bone remodelling is a complex phenomenon. Many hormones like 1-25 hydroxy Vitamin D, calcitonin, PTH, estrogen and androgen, all regulate bone formation. Local factors like IL-1, IL-6, TGF, Prostaglandins and TNF also interfere with bone formation. Osteoblast is the primary bone forming cell. Multinucleated osteoclast are responsible for repair, bone maintenance and bone turn over. During growth bone formation exceeds bone resorption.

Extend of peak bone mass in early adulthood and bone loss is determined by genetic, environmental, hormonal, nutritional, age related and lifestyle factors. It occurs by 18-35 years and remains steady for some time Then they lose bone mass 0.3% -6% in appendicular sites and 0.8-1.2% in spine.

Osteoporosis is classified into type 1 and type 2

TYPE 1: Post menopausal

At menopause 90% of blood estradiol is diminished. Estrogen administration in the post menopausal women prevents osteoporosis against vertebral and femoral fractures, greater effect is on spine.

Type 2: Senile

Here both trabecular and cortical bone is affected. There is increase in PTH level and osteoblastic senescence. Major fracture occur at hip and vertebrae. Lifetime risk is over 25% over 60 years. Vertebral fractures in second half of life is 5% in males and 15% in females. Hip fractures are common in men than women. Fracture threshold is higher in males than females

SECONDARY OSTEOPOROSIS

Genetic: Ehlers Danlos syndrome, Gauchers disease, hemochromatosis, homocystinuria, hypophosphatemia, marfans syndrome, osteogenesis imperfecta.

Hypogonadic state: Androgen insensitivity, anorexia nervosa, female athlete triad, hypo prolactinemia, Pan hypo pituitarism, premature menopause.

Endocrine: Acromegaly, Adrenal insufficiency, Cushings, DM, hyper parathyroidism, thyroid disease.

Gastrointestinal: Gastrectomy, malabsorption, celiac disease, CLD.

Hematological: Sick cell anaemia, Thalassemia, hemophilia, multiple myeloma, lymphoma, systemic mastocytosis.

Rheumatological: Rheumatoid arthritis, ankylosing spondylitis.

Nutritional: Calcium, magnesium and Vitamin D deficiency.

Drugs: Heparin, warfarin, anticonvulsants, cytotoxic drugs, gluco corticoids GnRH agonist, methotrexate, Thyroxin.

Miscellaneous: Alcoholism (>3 pegs), amyloidosis, chronic metabolic acidosis, CHF, cystic fibrosis, COPD, ESRD, Idiopathic hypercalcuria, Scoliosis, Immobilization, Multiple sclerosis, organ transplant, parenteral nutrition, sarcoidosis.

DIAGNOSIS OF OSTEOPOROSIS.

X ray radiolucency in osteopenia. Bone loss of approximately 30-40% is required to get radiolucency in the film.

DEXA (Dual Energy X-Ray Absorptiometry): DEXA is a gold standard for the diagnosis. It is non invasive, accurate, reproducible, and predictive of short and long term fracture risk.

WHO criteria for Osteoporosis after 1994 Geneva convention

Normal: A value for BMD not more than 1 SD below the young adult mean value.
T Score more than or equal to -1

Osteopenia: A value for BMD that lies between -2.5 SD below the young adult mean value. T score -1 to -2.5.

Osteoporosis: A value for BMD that is more than -2.5 SD below the young adult mean value ≤ -2.5 .

Severe osteoporosis: With fragility fractures.

Other screening tools can be used for the assessment of Fracture Risk Assessment tool (FRAX) questionnaire.

Lab tests:

BMD, CBC, LFT, Serum creatinine, Serum Calcium, Serum Phosphorus, Alkaline phosphatase, TSH, CRP, ESR, 24 hour urinary calcium excretion and creatinine, Serum 25 hydroxy vitamin D, Serum testosterone, Serum estradiol, 24 hour urinary cortisol, serum protein estimation and electrophoresis, Endomyseal antibodies to exclude celiac sprue.

TREATMENT

Non pharmacological: Regular exercise, Muscle strengthening exercises, diet good in calcium, Vitamin D, protein, trace elements like Manganese, cobalt, zinc, vitamin C, K. 1.2 gm of calcium and 800mg of vitamin D for females of all ages. Fall prevention. Habits like smoking and alcoholism should be avoided.

Pharmacological:

Calcium: Milk, yoghurt, cheese, paneer and fish are rich in calcium. Calcium carbonate and citrate are commonly used. Dose recommended is 1000 to 1200 mg Calcium in osteoporosis.

Vitamin D: It is a sterol hormone formed in the skin under the direct influence of UV light. Calcitriol increases the absorption of Calcium from the gut. Daily dose of 800-1200 IU/day. 60,000 units once in 2 weeks may also be used.

Biphosphonates: Most important and widely used medication for osteoporosis. They are synthetic analogues of pyrophosphates, suppress osteoclast mediated bone resorption. Used also in other diseases like Pagets and hypercalcemia of malignancy, metastatic bone disease, bone marrow disease like multiple myeloma. Nitrogen containing alendronate and ibandronate are more potent.

Selective Estrogen Receptor Modulators: SERM are anti catabolic agents to bone, acts acting through reduction of cytokine RANKL and TNF that endanger osteoclast activation and function. This is recommended for osteoporosis in menopausal women. Raloxifen reduces the risk of vertebral fracture. 60mg / day is given for few months.

Calcitonin: Peptide hormone produced by parafollicular cells of Thyroid gland. Decreases bone resorption and secondarily causes transient increases in bone formation. Miacalcic nasal spray available and it is effective and reduces pain in painful vertebral fractures. Dose is 50-100IU subcutaneously. Nasal spray 200 IU daily for few weeks.

Anabolic agents: Teriparatide is an anabolic agent widely used in the present scenario. This directly stimulate bone formation. PTH has emerged as the most promising agent at this time. PTH is administered in low dose intermittent fashion It prevents osteoblast apoptosis. Dose is 20mcg subcutaneously.

Denosumab: Monoclonal antibody directed against RANKL which is expressed on surface of osteoblast. Used in treatment for post menopausal women. It is cleared by reticuloendothelial system and can be used in a stage IV kidney disease. It is given 60mg subcutaneously every 6 months in a clinic.

CONCLUSION

1. Osteoporosis occurs in all age groups and is a global public health problem.
2. Osteoporosis is mostly a preventable disease.
3. Bone health during childhood and adolescent period is important for lifelong skeletal health.
4. Calcium and vitamin D supplement should be given throughout life.
5. Early diagnosis of osteoporosis, risk assessment and multiple drug regime may be required.
6. Regular habits, proper exercises, avoiding smoking and alcohol are important for bone health.
7. Osteoporosis in men is also common and should be treated.
8. Orthopedic surgeon must know how to treat osteoporosis, fragility fracture and follow up throughout his life.
9. Indian scenario concerns equal prevalence like Caucasians.
10. Improving the awareness among clinicians and general public is very important.
11. Treating osteoporosis is as important as treating fragility fracture.

ORTHO HOLLER QUIZ!

What is Nora's lesion?

Who first described Legg-Calvé-Perthes disease?

Expand the acronym STIR sequence

Send your answers to: Email id orthoholler@gmail.com

ACTIVITIES



**Renai CTIC @ Kochi
(One Day CME on Hip),
10th Feb 2019**



**18th & 19th May 2019
Lourdes Knee
Arthroplasty & Arthroscopy Live**



**Rajagiri CME on
10th March 2019,
Kochi (Primary TKA)**



**4th August 2019 KOA Observed
National Bone & Join Day**



**24th & 25th May 2019,
Sunrise Shouldercon**



Happy Husbands Trip



**“ KOA Premier league
Champions 2019 ”**



COS Family Night



Awards & Achievements

ഡോ. തോമസ് മാത്യുവിന് അവാർഡ്

കൊച്ചി ▶ എറണാകുളം ലൂർദ്ദ ആശുപത്രി ഓർത്തോപീഡിക് വിഭാഗം സീനിയർ കൺസൾട്ടന്റ് ഡോ. തോമസ് മാത്യുവിന് സമഗ്ര സംഭാവനയ്ക്കുള്ള, പ്രൊഫ. പി.എ. അലക്സാണ്ടർ മെമ്മോറിയൽ പുരസ്കാരം ലഭിച്ചു. ഓർത്തോപീഡിക് ശസ്ത്രക്രിയാ വിഭാഗത്തിൽ നൽകിയ സംഭാവനകൾ പരിഗണിച്ചാണിത്. കേരള ഓർത്തോപീഡിക് അസോസിയേഷന്റെയും കൊച്ചിൻ ഓർത്തോപീഡിക് അസോസിയേഷന്റെയും പ്രസിഡൻറായും അദ്ദേഹം സേവനമനുഷ്ഠിച്ചിട്ടുണ്ട്.



Dr. A. A John
Meritorious Award of KOA-2019
President of OASIS 2019



Dr. Joice Varghese
KOACON2019
Kollam Prof PKS
Best Paper Gold Medal



Dr. Niraj N
Lakeshore Hospital
KOACON2019 Kollam
Best Poster Gold Medal



Dr. Appu Benny Thomas
KOACON2019 Kollam
Best Video Gold Medal



KOACON2019,
Kollam Quiz Runner up
Dr. Jerry & Dr. Shyam
(Lourdes Hospital)
Represented for The COS



Dr. Gautha Kumar
Lakeshore Hospital
KOACON 2019 Kollam
Prof. K.C Jacob
Best PG Paper Gold Medal

Achievements:

Dr. Cheriyan Kovoor.C Elected as President Elect KOA 2019
Dr. Vijayamohan.S Elected as Chairman, CAPE KOA
Dr. John T John received FRCS (glasgow)

Congratulation to Dr Jacob Jacob For Winning The Gold Medal in State Power Lifting Championship

Dr. Nibu Kurian of the COS won the Dr. A A Mehtha Gold medal : IOACON 2018 6
Dr. Niranj, Aster Medcity won the Dr.S.S Yadav Gold Medal in IOACON 2018, Coimbatore
Dr. Arun Kumar of Medical Trust bagged Dr R.C Rallan Gold Medal in IOACON 2018, Coimbatore

FORTHCOMING EVENTS

19-20 oct 2019	CPAC 2019	Calicut
27th Oct 2019	MOTSCON	Perinthalmanna
3rd Nov. 2019	CAPE KOA	Kochi
10th Nov 2019	BACKWATER CME	Aleppey
19-24 Nov 2019	IOACON	Kolkotta
14th Dec 2019	MASTER'S KNEE MEET	Cochin
20th Dec 2019	PG TEACHING PROGRAM	Cochin