ORTHO HOLLER

COCHIN ORTHOPAEDICS SOCIETY NEWSLETTER - AUGUST 2020

Chief Editor: Dr.Divya G, Co Editor: Dr. Balu C Babu

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President's Message

Dearest COS members,

We are now facing one of the most challenging situations humankind has ever witnessed, a pandemic that has shaken the healthy living and peace of humanity. COVID-19 is a careful reminder of how a simple and healthy lifestyle can defeat a deadly life-threatening situation. As medical professionals, we have been dealing with such life-death situations daily, but now we have a moral responsibility as forefront fighters towards our fellow beings in promoting health and safety.

Also, being a group of academic enthusiasts, COS has successfully adapted to maintain comradeship and academic excellence via online platforms. Through some dynamic brainstorming sessions, COS has tried to provide various platforms to expand knowledge among its members and trainees, even better in this COVID era. Our members are performing state of the art practice, which is world-class and envied globally. Adding to this, we brought out the Ortho Holler newsletter last year, which was first of a kind among orthopaedics associations in our state. I want to congratulate our members for their research publications and presentations. I am sure my colleagues will develop more innovative ideas for the academic front in the upcoming days.

Unfortunately we lost four of our senior members this year who were very close to our hearts. My heartfelt condolences for their family.

"Being challenged in life is inevitable but getting defeated is optional ". So let us fight together in unity against this demanding situation. Stay safe; stay healthy.

Jai COS
Dr Chandrababu K K

Secretary's Message

Respected seniors and my dear friends .

We as Team COS have reached the far end of the 2019-2020. The most challenging phase each one of us have so far faced. We all are being through physical, mental, professional, financial and social issues. But together this too will pass along. We lost 4 of our respected senior orthopaedic surgeons last year, Dr P.M.Kurien, Dr Abdul Azeez, Dr Bosle and Dr Sachidanandan.My heartfelt condolences and prayers for them.

As we all are slowly adjusting ourselves to this "new normal", it's my duty to share with you all, the hope that the raging pandemic will be controlled by our efforts to bring it under control.Our society during the lockdown came out with the zoom meeting for monthly meetings, first of its kind, which was later copied by other societies. Let me congratulate Dr.Sujit Jos and Dr.Jiss Joseph and the team behind for the great effort they put in. PG training programmes which came to a standstill because of the restrictions were taken up on the Zoom platform and classes conducted efficiently. My sincere thanks to the persons who put in the effort for the same.

Elective care is being deferred in most healthcare facilities, and emergency care is being continued with strict precautions. Our patients with trauma who need immediate attention, keep us as a community with high risk for contact with Covid-19. In the initial period getting the rtPCR results on time was a concern. With the advent of antigen tests and more places to run tests have placed us in a better position. Let me humbly request you all to take all necessary precautions, including donning of appropriate PPE while caring for any patient. The evolution of telemedicine and its role in post-operative care; online conferences have all helped us keep ourselves engaged and updated.

We Orthopaedicians are well known among our fellow doctors for our jovial nature and immense bonding we have among ourselves. In these difficult times, it's a pride to say that we have stayed the same and, while maintaining physical distancing, we have kept us all connected by digital means.

I thank Dr. Chandrababu sir, our President for his tremendous support during his term and I wish him all the best.

Wishing you all safe and happy days to come.

Jai COS
Dr. Sudheer Shareef

THE COCHIN ORTHOPAEDIC SOCIETY

Dr. Chandra babu K K
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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 Kovoor C
Dr Sabin Viswanath
Dr. Dennis P Jose

CHARCOT NEUROARTHROPATHY

Dr Chandrababu K K,
Prof. & HOD,Dept. of Orthopaedics,
Amrita Institute of Medical Sciences and Research Centre, Kochi

Jean-Martin Charcot in 1868 described neuroarthropathy for the first time in association to tabes dorsalis. In 1936, Jordan was the first to describe Charcot in diabetes.

Charcot neuroarthropathy is defined as a chronic and progressive joint disease following the loss of protective sensation, which leads to the destruction of joints and surrounding bony structures and may even lead to amputation if left untreated.

Aetiology

Diabetes is the most common cause of Charcot arthropathy today, but other etiologies include syphilis, syringomyelia (upper-limb joints), heavy metal poisoning, alcoholic or congenital neuropathy, leprosy, rheumatoid arthritis, and idiopathic causes. Incidence is 0.1-1.4% in diabetics and 7.5% in diabetics with neuropathy. Usually present in 5th to 6th decade with no gender preponderance. Mostly involves foot and ankle (DM) (10-35% bilateral), shoulder and elbow (syringomyelia) and knee .

Pathophysiology

1. Neurovascular theory (French Theory -1868)
Autonomic neuropathy → Dilatation of blood vessels →Arteriovenous shunting → Increased blood flow→ Hyperemic demineralization → Increased osteoclastic activity → increased bone resorption → Mechanical weakening → fracture and deformity
2. Neurotraumatic theory(German Theory – 1870) Peripheral Neuropathy→ Insensitive joint→ Repeated trauma→ spontaneous fractures→ subluxation → Dislocation
3. Combined
4. Osteoclast- osteoblast Imbalance theory
A disproportionate osteoclast-to-osteoblast ratio and activity appear with strong immune reactivity.

Clinical features

I) Acute stage (Mimics Infection)
Foot may be red, warm and swollen with or without pain. Unlike infection the erythema will decrease with elevation in Charcot arthropathy. There will be bounding pedal pulse, temperature difference of 2-3° between affected areas, no deformity and X ray changes may or may not be present.
II) Chronic stage
Inactive stage with no signs of inflammation, no pain, no temperature difference, but with bounding pedal pulse and deformed bones.

Eichenholtz Classification in Diabetic Foot

Stage	Clinical Signs	Radiographic Signs
0	Unilateral oedema, erythema; warm, intact skin	No osteoporosis noted
1 Fragmentation	Similar to stage 0	Osseous destruction, joint subluxation/dislocation
2 Coalescence	Decreased erythema, warmth, oedema	Absorption of bone debris with the coalescence of small fracture fragments
3 Consolidation	No oedema, warmth, or erythema	Consolidation & remodelling fracture fragments

"Stage 0" - hot foot, normal Xrays. MR shows bone oedema and fractures

Stage 1 - fragmentation, bone resorption, dislocations, fractures

Stage 2 - coalescence, sclerosis, fracture healing, debris resorption

Stage 3 - remodelling

INVESTIGATIONS

1. Blood: Inflammatory markers -ESR and WBC→ elevated in both infection and Charcot arthropathy
2. Biopsy - in cases of associated osteomyelitis or soft tissue abscess.
3. Neurovascular status - Semmes-Weinstein monofilament testing, vibration perception threshold, Ankle-brachial index, transcutaneous oxygen tension(TcPO2).
4. Imaging:

a. Xray- weight-bearing lateral and dorsoplantar views of foot and ankle.
b. Bone scan (useful in determining the presence of superimposed osteomyelitis)
c. MRI (differentiating abscess from soft-tissue swelling but difficult to differentiate infection from Charcot arthropathy.

TREATMENT

Nonoperative : Indicated in stable joint with no deformity, early-stages of disease +/- Ulcers

1. “Offloading” is the historical gold standard :Provides time to heal, arrests progressive deformities, to be maintained for as long as foot demonstrates signs of inflammation which is typically 3 to 12 months. Sooner the offloading in the acute phase, better the outcome.

Offloading may be achieved by:- Total contact cast-TCC (changed every 2-4 weeks for 3-4months) followed by Charcot restraint orthotic walkers (CROW)/ PTB bracing/modified footwear.

a. TCC b. CROW c. PTB brace

2. Medications (Role is not definite): bisphosphonates, neuropathic pain medications, antidepressants, topical anaesthetics

B. Operative : Though have high complication rates, are indicated in ambulatory patients with recurrent ulcerations, unstable scar formation, unstable and unbrace-able deformities and to prevent amputation.
Goals of operative treatment is to have an ambulant, plantigrade, brace-able foot and to prevent ulcerations and amputations.

Surgical options :

1. Tendo Achilles lengthening/ Gastrocnemius recession (equinus correction),
2. Exostectomy,
3. Foot reconstruction- Arthrodesis of affected joints may be done in line with the concept of “Superconstruct” by Sammarco et al 2009. In “superconstruct” concept, the arthrodesis should be extended beyond the affected area into neighbouring joints and the resection of bone to produce mild shortening to enable foot repositioning without overstretching of soft tissues to avoid tissue hypoperfusion, using the strongest possible implant and placing the implant in a manner that provides maximum mechanical stability.

a) Internal fixation – Plates/Screws/ Tibio-Talar-Calcaneal Nail
b) External fixation - Protective bracing to be continued even after reconstruction

4. Amputation - indicated in cases with severe peripheral vascular disease,severe bone destruction including osteomyelitis and those with failed previous surgery.

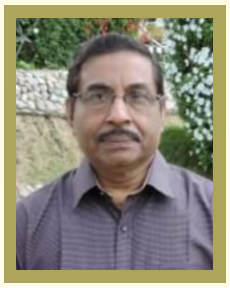
SUMMARY

Acute stage of Charcot’s neuroarthropathy may mimic infection.Once diagnosed as Charcot’s, the patient will need lifelong protective bracing.Goals of the treatment should be towards ulcer healing, limb salvage, deformity correction and return to independent activities of daily living, with protective footwear.Superconstruct fusion to reconstruct midfoot Charcot.TTC fusion for hindfoot Charcot.The success of treatment for neuroarthropathy depends on a multidisciplinary and holistic approach.

OBITUARY


Dr Abdul Azeez


Dr PM Kurian


Dr Bosle


Dr Sachidanandan R

Cochin International Orthopaedic Summit 2019 (Oct 4.5,6)

The Cochin Orthopaedic Society held its second biennial international conference CIOS-2019 on Oct 4, 5, 6 at Grand Hyatt, Kochi. It was a highly academic event with a registation of more than 300 delegates. A pre conference cadaveric workshop, live surgeries and talks were held in this academic bonanza by highly eminent national and international faculty. To emphasise on the importance of health and awareness against pollution, a cyclothon was held on the 6th October associated with the conference. Warm regards to all who made it a grand event..... Dr Venugopal

Cochin International Orthopaedic Summit 2019 (Oct 4.5,6)

Pre conference cadaveric workshop: Knee Arthroscopy / Pelvi - acetabular

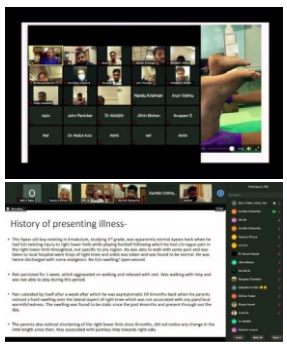
The venue .....

Banquet : rains can't dampen our spirits.....

CIOS Cyclothon

ACTIVITIES

Academics :precovid era



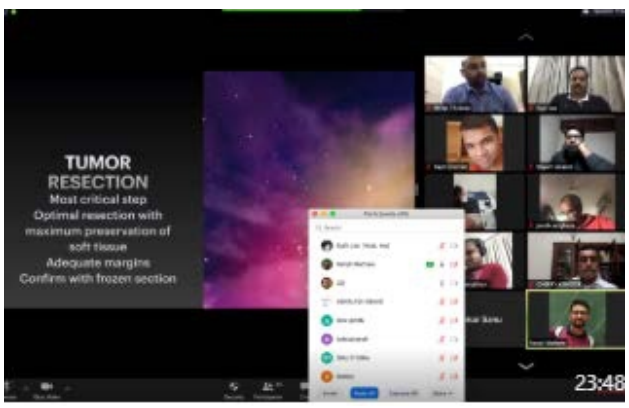
The resolve to continue …….

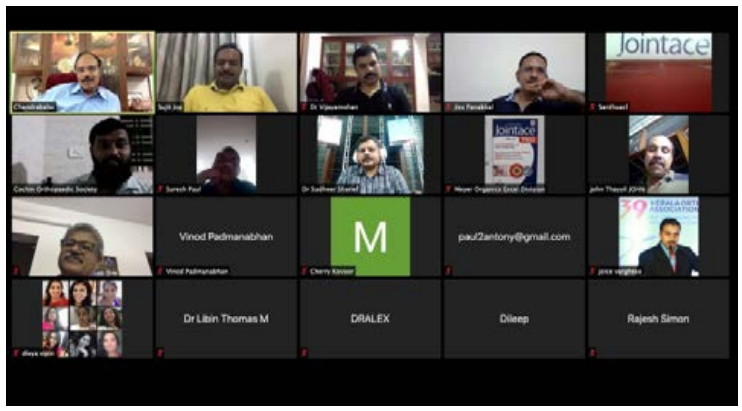
COS - Online Postgraduate training programme

KOACON 2020

COS team : the cricket champions 2020

Maximum participation from a club for KOACON 2020





The determination to stay connected : Zoom meeting ……..first of its kind in any society..

Fun ‘n ’health

Christmas Celebrations

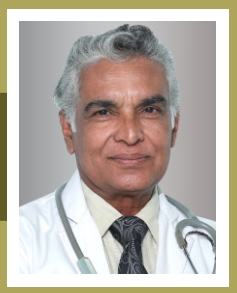
The Munnar Trip

Farewell to Mr Arun

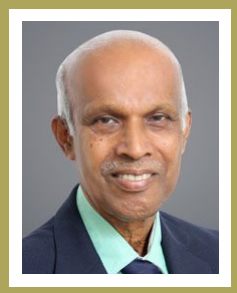
IMA sports day

ACTIVITIES

HAPPY RETIREMENTS



Dr Thomas Mathew



Dr V K Bhaskaran

AWARDS & ACHIEVEMENTS

Dr Cherian Kovoor was installed as the president KOA 2020

Dr Ranjit Kumar G & Dr Praseeth K R
First prize Quiz, KOACON 2020, Perinthalmanna

Dr Shankar Sanu
Best video gold medal, KOACON, Perinthalmanna

Dr Shikar Yadav & Dr Jithin Mohan
KOACON 2020 Quiz Runners up

Sreenivasa Rao

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J.N. International Stadium Road,
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Email: cochinortho@gmail.com

PUBLICATIONS BY COS MEMBERS

- Gautam Kumar, Vivek M, Julio C K, Bipin Theruvil - Primary hyperparathyroidism presenting as slipped capital femoral epiphysis Postgraduate Medical Journal 2020;96:235-236.
- Gautam Kumar, Alagu Pandiyan & Bipin Theruvil Percutaneous Quilting Technique for the Treatment of Morel-Lavallée Lesion. JOIO (2020).
- Trochanteric non-union treated with hook-plate and cable system along with total hip replacement - International Journal of Scientific Research – Prospective Scientific research publication – Sujit Jos, Subhash K R, Rajeev Anand, Inj J Sci Res – 2020 Mar, 9(3), 2277 - 8179
- Vascular groove sign in osteoid osteoma of the vertebral body. J Orthop Spine 2020;8:38-40-Dr Krishnakumar
- Study on Single Leg Stance Test as an Outpatient Assessment Tool in Spine Examination. J Spinal Surg 2019; 6 (1):11-15- Dr Krishnakumar
- A Case Report of Spondylodiscitis Masquerading as Malignancy. J Spinal Surg 2019;6(1):22-25- Dr Krishna Kumar
- Study on the Role of Non-Penetrating Titanium Clips in Dural Repair. Journal of Spine Research and Surgery 2 (2020): 067-076. Dr Krishna Kumar
- Jai Thilak, Vipin Mohan. Long-Term Comparison Study of Patella Resurfacing Versus Non-resurfacing in Total Knee Arthroplasty with Minimum 10-Year Follow-Up. JOIO (2020). https://doi.org/10.1007/s43465-020-00165-9
- Kumar M, Jai Thilak, Zahoor A. Long jump – An unusual cause of knee dislocation and multiple ligament injuries. Indian J Orthop Surg 2020;6(2):144-146. Doi:10.18231/j.ijos.2020.02
- Recovery of knee function associated with regeneration of semitendinosus and gracillis grafts used for reconstructive procedures International Journal of Orthopaedics Sciences IJOS 6(2):904-909 2020 Jeevan MP and John T John
- Effects of neglected anterior cruciate ligament tears on medial and lateral meniscus International Journal of Research in Orthopaedics july 2020:6(4):687-692 Jeevan M. P., John T. John

ORTHO HOLLER QUIZ!

Autosomal dominant Larsen's syndrome defect is in gene encoding?
What is the substance used to activate platelets in the prepared sample of PRP?
What is Preiser's disease?

Cash prize of ₹3000 to the winners

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