# Dr. Rajesh Kesavan, M.B.B.S., M.S., F.P.S., C.W.S.P.

### **Qualifications**

- MBBS from Stanley Medical College, Chennai
- MS., General Surgery from Stanley Medical College, Chennai
- Fellowship in Podiatric Surgery from Amrita Institute of Medical Sciences, Kochi.
- > Training in Ilizarov from Tan Toc Sec Hospital, Singapore
- Minifellowship in Diabetic foot management from University of Texas.

#### **Positions**

- Managing Director, Hycare Super Speciality Hospital, Chennai.
- Secretary, DIABETIC FOOT SOCIETY OF INDIA.
- Consultant Podiatric Surgeon, Apollo Hospitals (Main), Chennai, from January, 2006.
- Director, NRA Advanced Wound Care Pvt Ltd, Chennai,
- Trustee, TRAMP TRUST,
- Editorial Board Member, Journal Diabetic Foot & Ankle(<u>www.diabeticfootandankle.net</u>).
- Diplomate, American Board of Wound Management
- Certified Wound Specialist Physician.
- Member of Association of Diabetic Foot Surgeons
- Member of Association for Advancement of Wound Care (AAWC Based in New Jersey, USA)
- Member of European Wound Management Association.

# **Invited as Speaker:**

- ICMR Sponsored National Symposium on Infectious Disease by Dr. N.G.P Arts and Science College, Coimbatore, India.
- MVD DIACON 2009 by M.V. Diabetes Clinic, Madurai, India.
- Role of Growth Factors in Diabetic Foot Ulcer Management, Royal College of Surgeons of Thailand. 2010
- Improving Woundcare in Diabetes- An International Perspective, M.V.Hospital for Diabetes
  & University of Southampton 2011.
- Step Ahead Wound care Management by Dr. Reddy's Laboratories on topic "Indian Experiences in Wound Care Management(Diabetic Foot ulcer) at Vellore(2011).
- Advanced Wound Care Management by Coloplast A/S on topic "A Clinical Approach Towards Wound Management" at Chennai(2013).
- Workshop & Continuing Surgical Education Programme on Diabetic Foot, International College of Surgeons – Indian Section, Puducherry, India 2017.
- The Premier Surgical Training for the Diabetic Foot and Ankle DECEMBER 6-8, 2018 The Westin Riverwalk, San Antonio.
- Guest faculty at the 4<sup>th</sup> Pan African Diabetic Foot Study Group annual conference at Abuja, Nigeria, between 10<sup>th</sup> to 12<sup>th</sup> September 2018.
- 4<sup>th</sup> Gulf Diabetic foot Conference held between 23<sup>rd</sup> to 23<sup>rd</sup> March 2018, Hotel Conrad, Dubai, UAE
- ➢ 5<sup>th</sup> Gulf Diabetic foot Conference held between 15-16<sup>th</sup> March 2019, Dubai, UAE

### Membership:

- Hyperbaric Society of India.
- Indian Medical Association.
- Diabetic Association of India Southern Chapter.
- Undersea & Hyperbaric Medical Society.
- Member of Association of Diabetic Foot Surgeons (based in Brussels).

- Member of European Wound Management Association.
- > Editorial Board Member, Journal Diabetic Foot & Ankle.
- > Association for the Advancement of Wound Care.
- Venous Association of India.

### **Papers Presented in National and International Conferences:**

- In Nov 2005, a paper on Plantar Space Infections in Patients with Diabetes was presented in the Diabetic Foot Society of India Annual Conference at Cochin.
- In Mumbai, Oct 2006 he presented 'Effect of CERDAK (Bio-Ceramics') in healing Diabetic Foot Wounds' and 'Epidermal Growth Factors in Healing Wounds-Molecular and Bio-Chemical Study' (Received the best paper award).
- In Oct 2006 in the Association of Plastic and Reconstructive Surgeons of Southern Africa he presented a paper on 'Effect of CERDAK (Bio-Ceramics') in healing Diabetic Foot Wounds' at Drakensburg, South Africa.
- In Sept 2007 he tabled a paper on 'Efficacy of Recombinant Human Epidermal Growth Factor (Regen D 150) in Healing Diabetic Foot Ulcers' in the Diabetic Foot Society Annual Conference.
- In Jan 2008 he was invited by the Association of Wound Healing Society and European Tissue Repair Society to lecture on the Use of Vacuum Aided Closure Device in Diabetic Foot Wounds, in the city of Ahmedabad, India
- In Nov 2010 under the umbrella of RSSDI Annual Conference, presented about the latest advances in managing the diabetic foot, at Kochi.
- At Kochi in May 2011 has presented a talk on dressing materials for foot ulcers at the Amrita Diabetic Foot Conference.
- DFSI Annual Conference in Sep-11 at Hyderabad presented a lecture on Footwear for diabetic population, and on Dressing options for various wound types

- DFSI annual conference in Sep-12 at Jaipur presented a lecture on Biomechanics of normal and Diabetic foot
- Wound CareCon 2013 on Oct-13 at Pondicherry, Demonstration of application of silver dressings.

#### Workshop and Conferences Conducted:

- ▶ 1<sup>st</sup> Chennai Advanced Wound care Conference –July 2013, GRT Hotel, Chennai.
- > 2<sup>nd</sup> Chennai Advanced Wound care Conference –June, 2014, GRT Hotel, Chennai.
- 3<sup>rd</sup> Chennai Advanced Wound care Conference –July 2015,Residency Towers Chennai. CME by The TN Dr MGR Medical university
- 4<sup>th</sup> Chennai Advanced Wound care Conference –June 2016, Residency Towers Chennai. CME by The TN Dr.MGR Medical
- 15<sup>th</sup> Annual Conference of Diabetic foot Society of India conducted in December 2017 at Chennai, India
- 5<sup>th</sup> Chennai Advanced Wound care Conference under the theme Clarity among variety (Publish in Deccan chronicle Dec 9,2017)

### Awards and Achievements:

- The Tamilnadu Dr.MGR Medical University Gold Medal in Leprosy Sponsored by the Damien Foundation India Trust 1995-96.
- Maharaja of Travancore Prize in Surgery 1996.
- > Dr. K.Sankaran Memorial Prize in Clinical Surgery 1996.
- Best oration award for the paper Epidermal Growth Factors in Healing wounds-Molecular and Bio-Chemical Study in Diabetic Foot Society of India's Annual Conference 2006, Mumbai.
- Venous Ulcer Management in Diabetic Patients: A Comparative Study of the Effectiveness of Foam Dressings vs. Alginate Dressings was selected for research critique at the Spring SAWC in San Diego in April 2017.

- Was Invited as Faculty at Gulf Diabetic foot Conference conducted at Dubai on 23rd and 24th March 2018.
- Was invited as a Special Representative to the Dfoot Implementation forum at Brussels, Belgium held on 28th April 2018.
- Was invited as a faculty in the 13th Annual International External fixation Symposium held at San Antonio, USA on 6th December 2018.
- Represented India at the Dfoot International implementation meeting at Madrid, Spain from 16th to 18th November 2018.
- Was invited as a faculty at the Pan African Diabetic foot Study group meeting held at Abuja, Nigeria between 10th to 12th September 2018.

### Academics:

- Played a major role in the making of an educational DVD on 'Diabetes Foot care for Doctors' produced by Amrita Institute of Medical Sciences, Kochi and was released in August 2005.
- Co-edited a handbook, titled 'Diabetic Foot Care Protocol' for use in Amrita Institute of Medical Sciences, Kochi
- Revised the antibiotic guidelines for Diabetic Foot patients based on the past year culture sensitivity reports in coordination with the Departments of Microbiology and Infection Control of Amrita Institute of Medical Sciences, Kochi
- Regular lectures in CME programs conducted by Indian Medical Association
- Former Faculty for Fellowship students from World Health Organization at M.V.Hospital for Diabetes and Research Center, Royapuram, Chennai
- Former Faculty for Diploma in Diabetes students at M.V Hospital for Diabetes.
- Faculty of Fellowship certificate in Diabetology Course, 2008. Indian Medical Association, Tamilnadu State branch.

- Faculty of Fellowship certificate in Diabetology Course, 2009. Indian Medical Association, Tamilnadu State branch.
- Played a major role in producing the 2nd National Diabetic foot guidelines published in Dec 2017.
- Was a member of the Curriculum committee of the Dr.MGR Medical University for Fellowship in Podiatry course in 2016-17

### Training Skills – National & International:

- National Programme on Orientation of Medical Officer's on Disability management, Rehabilitation Council of India, Spastic Society of India, Chennai 2000.
- Training on HIV and AIDS Workshop by Welfare and Family Welfare Training Center, Egmore on 2001.
- Diploma in Podiatric Surgery, Department of Endocrinology and Diabetes, Amirta Institute of Medical Sciences, 2005.
- Wound Management Seminar, Postgraduate Medical school, University of Hertfordshire, U.K. 2008.
- Podiatry Symposium 2008, Post Conference Workshop, Singapore Footcare Centre, Singapore.
- Attended an Interactive Session on Diabetic Foot Care, M.V. Hospital for Diabetes & DRC and Diabetic Foot Society of India, Chennai
- Basic Life Support, Department of Accident and Emergency, Life Support Training Centre 2008.
- MiniFellowship in Diabetic Foot and Ankle Surgery, 2009 in U T Health Science Center, San Antonio.
- Basic Vascular Surgical skills, Hands on training course by Vascular Society of India.
- Completed a Program on the Assessment and Management of Diabetic Foot Disease, Glasgow Caledonian University School of Health.
- ➤ Forefoot Cadaver Surgery (2009), The Podiatry Institute, Georgia.

- Arthrex Foot Course at ArthroLab in Munich, Germany(2013)
- Course on Wound Technology by Asian Academy of Wound technology at Seoul, South Korea, Sep-2010
- Induction training –Dandia Health care Project,2001,Health & Family Welfare Training Center ,Chennai
- ➢ Basic Podiatric Course(2009), Atlanta, Georgia.
- Indo-US Advances and Techniques in Foot and Ankle Surgery, Ganga Hospital, Coimbatore, Jan 2011.
- Training on E6 ICH GCP, Facing Audits and Inspections by Novo Nordisk India Private Limited on 2011
- Flap Dissection Course 2012, Hands on Cadaveric Work Shop on Flap Dissection, T.N Medical College and B.Y.L Nair Charitable Hospital, Mumbai, India.
- Basic Ilizarov Course, Tan Tock Seng Hospital, Singapore(2012)
- > Trained in ankle arthroscopy at Amsterdam 2012.
- Have undergone advanced training in lower limb biomechanics from the International College of Biomechanics, Australia in 2012.
- Have undergone training in corrective surgeries in diabetic foot at the New York College of Podiatric Medicine in 2012.
- > Trained in Hyperbaric Medicine from St. Francis Hospital, Hartford, CT, USA.

#### **Research Projects on-going**

### Collaborations with SRM University, Tamilnadu.

### <u>2016</u>

- Role of Endoplasmic Reticulum stress and oxidative stress markers in diabetic peripheral neuropathic ulcer
- Impact of hyperbaric oxygen therapy on *nrf-2* and its molecular targets in neuropathic foot ulcer: a prospective and randomized follow up study(SRM)
- Role of miRNA In Diabetic Wound Healing

# <u>2017</u>

- Role of Long noncoding RNAs (lncRNAs) in diabetic wound healing
- ▶ Role of Nrf2 (Nuclear factor erythroid-derived 2)-like-2 in Diabetic Foot Ulcers

# **Hycare for Wounds**

# <u>2016</u>

- Midfoot Charcot exostoses with midfoot ulceration- retrospective study of effectiveness of midfoot exostectomy.
- Neuropathic ankle destruction treated by external fixation with ring fixatorretrospective study done

# <u>2017</u>

- Efficacy of Topical Doxycycline with hydrogel in the management of wound healing in Chronic Diabetic Foot Ulcers
- Management of a Diabetic Patients with Osteomyelitis: A Pilot Study On antibiotic loaded calcium sulphate beats in South Indian Population
  - Venous Ulcer Management in Diabetic Patients: A Comparative Study of the Effectiveness of Foam Dressings vs. Alginate Dressings
  - A study on bacterial population in patients with infected Diabetic foot ulcer in south India
  - Incidence of lower limb amputation in diabetes-a study from patient in NRA
    Wound Care in India
  - > Assessment of wound exudate an essential validation for wound management
  - The Effect Of Intensive Versus Conventional Glycemic Control In Diabetic Foot Ulcer Healing: A Randomized Control, Multicentric Study Aims And Objectives

# <u>2018</u>

- Plantar fascia release for a Non-healing ulcer with great toe among the south Indian population.
- Vitamin D supplementation on wound healing in patients with diabetic foot ulcer-A pilot
  - A comparative clinical study to evaluate Skin and Soft Tissue Infections using a novel non-invasive fluorescence-based imaging device

 Evaluation of amputation risk in diabetic foot ulcer patients infected with Acinetobacter baumannii in Tertiary care centre in South India

### **Publications**

- Vijay Viswanathan, Rajesh Kesavan, K.V. Kavitha, and Satyavani Kumpatla. A pilot study on the effects of a polyherbal formulation cream on diabetic foot ulcers. *Indian J Med Res.* 2011 Aug; 134(2): 168–173.
- Vijay Viswanathan, MD, PhD, Rajesh Kesavan, MS, Kavitha KV, DPS, Satyavani Kumpatla MSc, MTech, PhD. The Evaluation of Roger's Charcot Foot Classification System in South Indian Diabetic Subjects with Charcot Foot. *The Journal of Diabetic Foot Complications*, 2012; Volume 4, Issue 3, No. 2, Pages 67-70
- Umapathy Dhamodharan PhD, Rajan Teena MSc, Ramachandran Vimal Kumar MSc, Sheela Sasikumar Changam PhD, Kunka Mohanram Ramkumar PhD, Kesavan Rajesh MD, Circulatory levels of B-cell activating factor of the TNF family in patients with diabetic foot ulcer: Association with disease progression, Wound Repair and Regeneration First published: 30April 2019 https://doi.org/10.1111/wrr.12720
- Rajesh Kesavan, Dhamodharan Umapathy, Karan Naresh Amin, Sireesh Dornadula, Kunka Mohanram, Tissue-specific role of Nrf2 in the treatment of diabetic foot ulcers during hyperbaric oxygen therapy, April 2019, Free Radical Biology and Medicine 138 DOI: 10.1016/j.freeradbiomed.2019.04.031
- Rajesh Kesavan, Changam Sheela Sasikumar and Vimalkumar Ramachandran. A Case Study on Antibiotic Loaded Calcium Sulphate Beads in the Management of Diabetic Foot Complications. Kesavan et al. *Int J Foot Ankle* 2018, Volume 2 | Issue 1
- Rajesh Kesavan, Changam Sheela Sasikumar and Aravind Chandrasekar.2018. Evaluation of amputation risk in diabetic foot ulcer patients infected with Acinetobacter baumannii from a Tertiary Care Centre in South India. *International Archives of BioMedical and Clinical Research.* 4, 4 (Dec. 2018), 59-62.
- Dhamodharan Umapathy, Sireesh Dornadula, Arvind Rajagopalan, Narayana Murthy, Vairamani Mariappanadar, Rajesh Kesavan, Ramkumar Kunka Mohanram, Potential of circulatory procalcitonin as a biomarker reflecting inflammation among South Indian diabetic foot ulcers *Journal of Vascular Surgery*, Volume 67, Issue 4, 1283 - 1291.e2
- Rajesh Kesavan, Arunbal, H Kumar, N Varma, Ajith varma and R Savitha. Webspace infections –A preventable prelude to lower extremity amputations.-Diabetic foot society of India, annual conference 2006

 Rajesh Kesavan. Clinical Applications of Vac Therapy in Treatment of Diabetic Foot Ulcers.- Diabetic foot society of India, annual conference 2006

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# **Clinical Trials**

- Silver Stream Case Study\_V001 EnzySurge Comprehensive Wound Care .Study initiated on March 2013. PI Dr Rajesh Kesavan
- Clinical and Cost Effectiveness of Different Dressing Materials in Diabetic Foot Ulcers

Sponsors and Collaborators -M.V. Hospital for Diabetes, Principal Investigator: Dr Vijay Viswanathan, Study Director: **Dr Rajesh Kesavan**.

Clinical Efficacy and cost effectiveness of Cerdak dressing over Saline gauze dressing among diabetic foot ulcer. Rajesh Kesavan, Mary Babu, Vijay Viswanathan

# Social Service

# **Camps Conducted**

- Awareness on obesity for diabetic patients Lipid profile test in 07-09-2018 at Hycare for Wounds.
- **Diabetes screening camp** HbA<sub>1</sub>c test on 16-08-2018 at Hycare for Wounds.
- Managing Diabetes during Ramadan in association with Lilly in the year 21-6-2017 at Hycare for Wound center.
- **Basel insulin management with Sanofi** on 24-5-2017 at Aysha Hospital, Chennai.
- Foot care camp for those affected by Chennai floods on 20-12-2015 at Hycare for Wounds.
- Diabetic foot care camp for senior citizen with lions club in 01-07-2015 at Hycare for Wounds.

# **Medical Awareness on Diabetes.**

<u>https://www.youtube.com/watch?v=2q2DyWpFNTM</u>

Precautions For Diabetic Patients To Maintain A Healthy Feet by **Dr.Rajesh kesavan** Consultant podiatric surgeon.Sep 29, 2018

- <u>https://www.youtube.com/watch?v=0PO-ecA9jdY</u>
  Wound Care Management, Diabetes India, Published on Jun 30, 2015
- https://www.youtube.com/watch?v=KSvCwM-AXsA Diabetic Foot Society Of India Kicks Off Its 15th Annual Conference In Chennai