

Special Interest Group



On

Orofacial Pain

An Initiative of Research Division
JSS AHER, Mysuru-15.



Team Lead Dr. MAHESH K P

Reader

Department of Oral Medicine & Radiology

JSS Dental College & Hospital,

JSS AHER, Mysuru.

Started on 2019-20



JSS Academy of Higher Education & Research

(Deemed to be University)
Accredited "A+" Grade by NAAC



Date: 20.12.2019

REG/ACA/SIG/OFP/427/2019-20

NOTIFICATION

Sub: Reconstitution of Special Interest Group in "Orofacial Pain".
Ref: JSS AHER earlier Notification No. REG/ACA/SIG/225/2015-16 dated 10.05.2016.

Special Interest Group (SIG) – "Orofacial Pain"

In exercise of powers conferred under Section 50 (xxii) and 12 [xi (a)] of the MoA/Rules of JSS Academy of Higher Education & Research as per UGC Regulations 2016, the Special Interest Group (SIG) in the area of "Orofacial Pain" has been reconstituted for focusing on basic and applied research in the area of Orofacial Pain with the following members:

SI.No.	Name of the member	Remarks	
1	Dr. Mahesh K.P Reader Dept. of Oral Medicine & Radiology JSS Dental College & Hospital.	Group Leader	
2	Dr. Balasubramanian S Director (Research) JSS AHER.	Ex- Officio Member	
3	Dr. Pratibha Pereira Professor & Head Dept. of Geriatrics JSS Medical College.	Member	
4	Dr. Akkamahadevi P Professor Dept. of Anaesthesiology JSS Medical College.	Member	
5	Dr. Saikrishna D Professor & Head Dept. of Oral & Maxillofacial Surgery JSS Dental College & Hospital.	Member	
6	Dr. Jaishankar Reader Dept. of Oral Medicine & Radiology JSS Dental College & Hospital.	Member	
7	Dr. Prathiba R Matche Assistant Professor Dept. of Anaesthesiology JSS Medical College.	Member	

The SIG "Orofacial Pain" shall function for a period of three years from the date of Notification.

The SIG shall submit their report once in six months to the JSS AHER. The budget for the functioning shall be submitted by the Group leader of the SIG and approval shall be obtained from the JSS AHER for carrying out their various activities.



Guidelines for the formation of Special Interest Groups:

Objective: To promote research in specific area by a group of individuals working in the constituent colleges of the JSS AHER, who are desirous of promoting research in a specific area through

- Continuous dialogue
- Conducting Group meetings
- · Submitting research projects
- Development of new ideas in research in the identified area and translating the same into research proposals to external funding agencies and research publications in indexed journals.
- Translating research findings into the clinical applications
- Organizing seminars related to objectives of the Group.

The SIG should categorize their objectives as short term and long-term objectives and while submitting the progress reports, highlight their achievements under the same.

Structure: The SIG shall consist of 5-7 members with a group leader. They shall meet periodically and submit the report annually of the group activities and achievements.

The Special Interest Group shall function for a period of 3 years from the date of notification, which can be extended further, based on the outcomes and reviewed by the Board of Management of the JSSAHER.

Budget: The budget required for functioning of the SIG shall be allocated from Research and Development fund of the JSS AHER based on the budget prepared and submitted by them annually.

The budget shall be provided for following aspects.

- Meeting expenses of the Group.
- Short travels within India for the purpose of group objectives.
- Secretarial assistance as required by the Group.
- Preparation of research project proposals/reports.

The JSS AHER shall provide in its budget for the expenditure proposed by the Special Interest Groups and make the funds available to the respective group.

Evaluation of outcomes: The JSS AHER shall evaluate the SIG periodically in respect to their group objective examining the follows.

- Progress in the proposed research projects.
- Publication of research findings in periodicals and presentations
- Reports.

REGISTRAR



To,

All the above members,

Copy to:

- 1. The Pro Chancellor, JSS AHER.
- 2. The Vice Chancellor, JSS AHER.
- 3. The Controller of Examinations, JSS AHER.
- 4. The Director (Academics), JSS AHER.
- 5. The Director (Research), JSS AHER.
- 6. The Dy. Registrar (Senior Grade), JSS AHER.
- 7. The Dy. Director (Academics), JSS AHER.
- 8. The Dy. Director (Authorities), JSS AHER.
- 9. The IQAC Coordinator, JSS AHER.
- 10. The Associate Director (Research), JSS AHER.
- 11. The Asst. Director (Academics), JSS AHER.
- 12. The Asst. Director (Research), JSS AHER.
- 13. The Principal, JSS Medical College.
- 14. The Principal, JSS Dental College & Hospital.
- 15. The Principal, JSS College of Pharmacy, Mysuru.
- 16. The Principal, JSS College of Pharmacy, Ooty.
- 17. The Head, Dept. of Water & Health (FLS), JSS AHER.
- 18. The Coordinator, Dept. of Health System Management Studies, JSS AHER.
- 19. Office Copy.



Name of the SIG: Orofacial Pain Compendium

Approval Reference: REG/ACA/SIG/ OFP/ 427/2019-20 dated

20/12/2019

Team Lead: Dr. MAHESH K P

Members

Sl. No.	PI	Role	
1.	Dr. Mahesh K P Reader Dept. of Oral Medicine & Radiology JSS Dental College & Hospital, Mysuru	Group Leader	
2.	Dr. Jaishankar H P Reader Dept. of Oral Medicine & Radiology JSS Dental College & Hospital, Mysuru	Advisor	
3.	Dr Prathiba Pereira Professor and HOD, Dept. of Geriatrics JSS Hospital, Mysuru	Advisor	
4.	Dr. Prathibha Machae Associate Professor Dept. of Anesthesiology JSS Hospital, Mysuru	Member	
5.	Dr. Sai Krishna Oral & Maxilla Facial Surgeon Dept. Dental JSS Hospital, Mysuru	Member	



Objectives

- 1. Continuous Dialogue
- 2. Conducting Group Meetings For Discussing Research Options.
- 3. Translating Research Findings Into Clinical Applications.
- 4. Patient Management
- 5. Organizing Seminars And Discussions Pertaining To The Objectives Of Sig.

Overview

Orofacial pain represents one of the most common health problems that negatively affects the activities of daily living. Pain in the orofacial area is the most common reason for patients to visit the dentist. Still, this area is complex, and the pain could be associated with the hard and soft tissues of the head, face, oral cavity, or nervous system dysfunction.

Orofacial pain is a field undergoing significant evolution, with an expanding scope that now includes several distinct pain syndromes. Contemporary understanding of orofacial Temporomandibular Joint (TMJ) encompasses characterized by dysfunctions of the jaw joint and associated musculature; masticatory musculoskeletal pain, originating from the muscles involved in mastication; cervical musculoskeletal pain, which can extend from the cervical spine to the orofacial region; and neurovascular pain, involving the neural and vascular structures within the face. This broadened framework reflects an advancing comprehension of orofacial pain as a multifaceted requiring nuanced diagnostic condition and therapeutic approaches.







• Considering that the origins of orofacial pain can be many and varied, a thorough assessment of the situation is necessary to enable the most appropriate diagnostic pathway to be followed to achieve optimal clinical and therapeutic management.

• JSS dental college and hospital have initiated a team to access, diagnose and management of orofacial pain.

• This compilation speaks about the approach of JSS dental college and hospital towards various aspects of orofacial pain.

Higlights Of Orofacial Pain Initiative

Research

1. Understanding the various concepts of pathogenesis in orofacial pain

2. Pysicosocial factors affecting orofacial pain mainly oral

cancer patients.

3. Development of various phytochemicals to manage oral cancer cell line(docking study)

Awareness

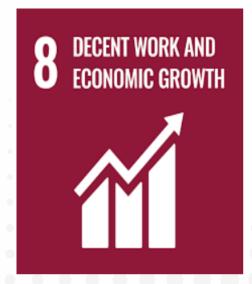
1. Awerness on oral cancer at school level

2. Adressing general public on ill affects of tobacco.

Capacity Building

Capacity building through knowledge sharing -various seminar, cde programme and interection with students.

Research Projects







Sl.No	TITLE	FUNDED		PI	OUT COME
1.	Gold nanoparticle platform with tio2 nanoparticle for theranostic purpose in managing oral cancer	JSSAHER	2 LAKHS	DR MAHESH K P	Patent Published
2.	Lornoxicam as mouth dissolving film in management of post extraction pain	JSSAHER	2 LAKHS	DR MAHESH K P	Patent Granted
3.	Vision graphic study in bring awareness on etiology of oral cancer			DR JAISHANK AR	Study Completed
4.	Biopsycosocial model for assessing the pain outcome – evaluation study	JSSASHER	1.25 LAKHS	DR MAHESH K P	Published in Siberian Journal of Oncology
5.	Assessment of neurosensory disturbance in orthognatic surgery patients.	POST GRADUATE STUDY		DR SAI KRISHNA	In Press
6.	Ashwaganda and laxmitharu plant extract in assessing cytotoxicity in oral cancer cell line(docking study)	PHD STUDENT		DR MAHESH K P DR BHAVANA H	Ongoing



Collaboration



Interdisciplinary Collaboration for Various

Research Projects

- Gold nanoparticle platform for Tio2 nano particle for Theranostic purpose in oral cancer management- JSS dental college and Jss life science, department of Nanothechnology-Dr Mahesh K P and Dr Asha S
- Industrial Collaboration with SKAN RAY for developing X RAY UNIT- Dr Jaishankar
- Lornoxicam mouth dissolving film for pain control Dr Mahesh K P and Dr Amit P
- Development and designing novel brush -A transepithelial brush - for diagnosing precancer and cancer patients.- DR MAHESH K P and MR RAJGOPAL OF BRUSH TECK INDIA, MYSORE



Achievements

Publications

- Expect the Unexpected Transient Cranial Nerve Palsies after Radiofrequency Ablation of Gasserian Ganglion for Trigeminal Neuralgia: Dr Prathiba R. Matche: 2023, Journal: Indian Journal of Pain Factor: 0 Volume #: 37 Issue #: 9 Page #: 73 76. Publisher: Medknow.
- Efficacy of Ganglion Impar Block in Perineal Pain of Various Etiologies: A Case Series First Author: Dr Prathiba R. Matche [Journal Article] [Year: 2021] Journal: Indian Journal of Pain Factor: 0 Volume #: 35 Issue #: 3 Page #: 240 244 Publisher: Medknow.
- Continuous Stellate Ganglion Block for the Effective Management of Ischemic Pain Following Compartment Syndrome of Upper Limb Due to Accidental Intra- First Author: Dr Prathiba R. Matche: 2020, Journal: Indian Journal of Pain Factor: 0 Volume #: 34 Issue #: 1 Page #: 50 52 Publisher: wolters-kluwer
- Ultrasound in Pain and Musculoskeletal Interventions A Nation wide Survey of Practicing Pain Physicians First Author: Rajendra Kumar Sahoo, 2020 Journal: Indian Journal of Pain Factor: 0 Volume #: 34 Issue #: 3 Page #: 164 – 170 .Publisher: Wolters Kluwer
- Assessment of Prevalence and Characteristics of Pain and Its Association with Quality of Life in Elderly ,Dr Prathiba R. Matche 2018],Journal on Recent Advances in Pain, Factor: 0 Volume #: 4 Issue #: 3 Page #: 100 – 104 Publisher: JAYPEE
- Handbook of Pain and Palliative Medicine, First Author: Dr Prathiba R. Matche [Year: 2018, Publisher Detail: Paras Medical Publisher ISBN Number: 978-81-8191-487-3
- Assessment of the prevalence of temporomandibular joint disorder among vocalists and musicians using a questionnaire study , Dr Jaishankar H.P 2023 Journal: Medical Science Journal of Discovery Scientific Society Factor: 0 Volume #: 27 Issue #: 132 Page #: 1 – 8,Publisher: Discovery Scientific Society
- Virtual Awareness Programme (VAP) Way to curb the tobacco menace and Oral cancer? , Dr Sreeshyla H.S 2023, Journal: Journal of Oral and Maxillofacial Pathology Factor: 0 Volume #: 14 Issue #: 1 Page #: 1 – 2 Publisher: KSOMP



- Bruxism and temporomandibular disorders in children An overview First Author: Dr Vishal Kudagi, 2021, Journal: International Journal of Scientific Research Factor: 0 Volume #: 10 Issue #: 3 Page #: 75 77, Publisher: Journal of medical science
- Effect of Single dose Methylprednisolone Injection at Stylomandibular Ligament Insertion on Pain & Various Mandibular Movements in Ernest Syndrome, First Author: Saubhik Dasukil Year: 2023Journal: Indian Journal of Otolaryngology and Head and Neck Surgery Factor: 0.328 Volume #: 74 Issue #: 3 Publisher: Springe
- Objective and subjective comparison of submucosal and intravenous routes of single-dose preoperative dexamethasone for mandibular third molar surgery
- for mandibular third molar surgery

 Namitha M. Hiriyanna[Year: 2021] Journal: Oral and maxillofacial surgery Factor: 1.133 Volume #: 25 Issue #: 02 Page #: 207 213Publisher: Springer
- CORONOVIRUS DISEASE :PSYCOLOGICAL INTERPERSONAL EFFECT PUBLIC FOR SYSTEMS- NEED FOR RESEARCH First Author: Dr Mahesh K.P [Journal Article] [Year: 2024]Journal: Acta Scientific Dental Sciences - Wiley Factor: 0 Volume #: 8 Issue #: 2 48 49 Publisher: ACTA SCIENTIFIC Page INTERNATIONAL LIBRARY
- BACKGROUND OF ORAL CANCER First Author: Dr Mahesh K.P [Journal Article] [Year: 2024] Journal: Bioinformatics for Oral Cancer Factor: 0 Volume #: 1 Issue #: 1 Page #: 29 41 Publisher: CRC PRESS, TAYLOR AND FRANCSIS
- Understanding drug delivery system for safe dispensing and good therapeutic efficacy a review First Author: Dr Mahesh K.P [Journal Article] [Year: 2023] Journal: Acta Scientific Dental Sciences Wiley Factor: 0 Volume #: 7 Issue #: 4 Page #: 32 39 Publisher: wiley.
- BASICS TO ADVANCES IN OROFACIAL PAIN DIAGNOSIS –
 BY DR MAHESH K P AND DR APARNA M PUBLISHER –
 ITERATIVE INTERNATIONAL PUBLISHER



 PROBABILITY PREDICTION OF NERVE INJURY USING CBCT IMAGES IN MANDIBULAR FRACTURES: AN OBSERVATIONAL STUDY, DR VIVEKA SEKARAN, YEAR: 2023, JOURNAL: JOURNAL OF INDIAN ACADEMY OF ORAL MEDICINE AND RADIOLOGY VOLUME #: 35 ISSUE #: 2 PAGE #: 191 – 196 PUBLISHER: WALTERS KLUWER MEDKNOW.

Patent





SHITST SITERITE
GOVERNMENT OF INDIA

tmai/\$ ## : <u>Cannai antent@nis.</u> \$empt/website:<u>http://pindis.ni</u>

tf. \ No. 202241004680 Strik \ Dated the 31/10

शेख थे, \ To :

Address of Service:- M. Suresh Gupta No. 106, KPSC Layout, Jnansbharathi 2nd Stage, Nagadevanahalli, Bangalore – 560 056, Kamataka, li Email Id:- ramsureshgupta@gmail.com.spsiprs@gmail.com

शिषा :- फेटेंट आवेदन संख्या 202241004680 के संबंध में अधिनियम की धार 43 के तहत फेटेंट अन्दान तथा फेटेंट रिकटन में प्रीविद्ध की सचना

Sub > Intimation of the grant and recordal of patent under section 43 of the Act in respect of patent application no. 202241004680

महोदय महोदया,

Sir Madam,

आपको सृचित किया चाता है कि पेटेंट अधिनिय, 1970 की धारा 12 व 13 तथा उस आधार पर को नियम के तहत उपर्युक्त पेटेंट आवेदन के परीक्षण [व 02/05/2022 हुई सुनवर्त] के उपरांत एतदहारा पेटेंट अनुवान किया चाता है। तथा पेटेंट अनुवान की प्रशिक्त 31/10/2022 को पेटेंट एक्सिटर में कर दी गयी है।

This is to Inform you that following the examination of above mentioned patent application under section 12 and 13 of The Patents Act 1970 and Rules made thereunder [and hearing held on 02/05/2022] a patent is hereby granted and recorded in the Register of Patents on th 31/10/2022. The Patent Certificate is enclosed herewith.

पेटेंट भीग्रम \ Patent No

- 410638

आवेटक का राम \ Name Of Applicant

: JSS Academy of Higher Education and Research

चेटेंट दिशांक \ Date of Patent

28/01/2022

पूर्विता विभि \ Priority Date

28/01/2022

पर्यक्रम हेतु अनुपेध दाखिल करने की तिथि \ Filling

28/01/2022

date of Request for examination

strink | Title

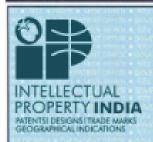
A stable and rapidly disintegrating orodispersible film formulation and a process thereof

दावों की शंख्या \ Number of claims

: 10

उपर्युक्त पेटेंट के अनुदान का प्रकारान अधिनियम की धारा 43 के तहत पेटेंट कार्यातन के आधिकारिक जर्नत में किया जाएगा।







भारत सरकार GOVERNMENT OF INDIA पेटेंट कार्यालय THE PATENT OFFICE पेटेंट प्रमाणपत्र PATENT CERTIFICATE (Nule 24 of The Patents Rules) **第मांक**: 044146197 SL No:



पेटेंट से. / Patent No.

410638

आवेदन सं. / Application No.

202241004680

फाइल करने की तारीख / Date of Filing

28/01/2022

ਪੋਟੋਟੀ / Patentee

JSS Academy of Higher Education and Research

आविष्कारक (जहां लागू हो) / Inventor(s)

1 Amit Baburao Patil 2 Mahesh Kaggare Puttaraju 3 Suraj Srinivas 4 Prasad Rao 5 Apama Vijayan Mayarani

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में व्यवप्रकटित A stable and rapidly disintegrating orodispersible film formulation and a process thereof नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपन्येथों के अनुसार आज तारीख जनवरी 2022 के अट्टाईसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुस्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled A stable and rapidly disintegrating orodispersible film formulation and a process thereof as disclosed in the above mentioned application for the term of 20 years from the 28° day of January 2022 in accordance with the provisions of the Patents Act,1970.



अनुपन की सारित्र : Date of Grant :

31/10/2022



FORM 2

The Patent Act 1970 (39 of 1970)

& The Patents Rules, 2003 (See section 10 and rule 13)

Provisional Specification

Title: A nano-hybrid conjugate system of a theranostic agent

Name of the Applicant:

JSS Academy of Higher Education and Research, Bannimantap Road, Sri Shivarathreeshwara Nagara, Bannimantap A Layout, Bannimantap, Mysuru - 570 015, Karnataka, India.

Nationality: Indian

20

The following specification describes the invention

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(21) Application No.202241006292 A

(22) Date of filing of Application :06/02/2022 (43) Publication Date: 11/02/2022

(54) Title of the invention: A kit and a method for predicting oral cancer

:A61B0010020000, C12Q0001688600,

(71)Name of Applicant:

1)JSS Academy of Higher Education and Research Address of Applicant :Bannimantap Road, Sri Shivarathreeshwara Nagara, Bannimantap A Layout, Bannimantap, Mysuru – 570 015, Karnataka, India. –

G01N0033574000, A61B0010000000, classification G02B0021340000

(86) International Application No

:01/01/1900

Filing Date (87) International : NA Publication No

Publication No (61) Patent of Addition:NA to Application Number:NA Filing Date (62) Divisional to Application Number :NA Filing Date

Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor :

1)Mahesh Kaggare Puttaraju Address of Applicant :Department of Oral Medicine and Radiology, JSS Dental College and Hospital, Mysore Bangalore road, Sri Shivarathreeshwara Nagara, Bannimantap, Mysuru - 570

JSSAHER, Bannimantap Road, Sri Shivarathreeshwara Nagara, Mysuru – 570 015, Karnataka, India. ------

3)Karthikeya Patil

JARTHINGY FAUL
Address of Applicant :Department of Oral Medicine, JSS Dental
College and Hospital, JSSAHER, Bannimantap Road, Sri
Shivarathreeshwara Nagara, Mysuru – 570 015, Karnataka, India.

4)Usha Hegde

Address of Applicant :Department of Oral Pathology and Microbiology, JSS Dental College and Hospital, JSSAHER, Bannimantap Road, Sri Shivarathreeshwara Nagara, Mysuru 570 015, Karnataka, India. -

Oral cancer is a global problem which is increasing the national and international burden. Its early prediction is always a challenge. Existing kits and the methods thereof for collecting and assessing the cell samples suffer with various limitations including but not limiting to cost, failure to collect sample from critical areas of oral cavity, insufficient sample quantity, and multiple sampling for analysis. To overcome these limitations, the present disclosure provides a kit for sample collection and assessment. Particularly, the



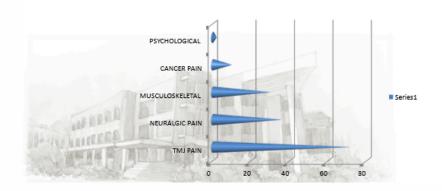
Patent Activity

JSS ACADEMY OF HIGHER EDUCATION & RESERACH JSS Dental College & Hospital



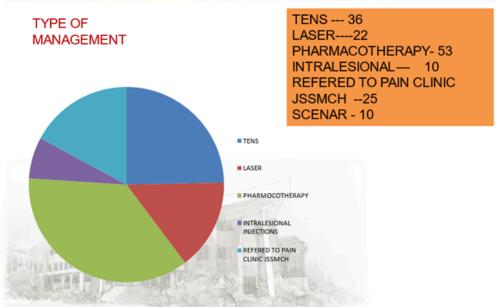
Distribution of Pain Patients

TMJ -70
NEUROLOGICAL -30
MUSCULOSKELETAL- 30
ORAL CANCER- 10
PSYCOLOGICAL - 02



JSS ACADEMY OF HIGHER EDUCATION & RESERACH JSS Dental College & Hospital





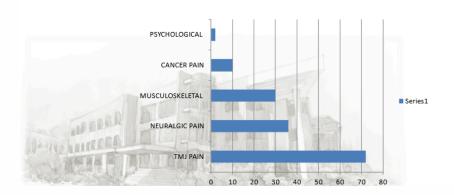


JSS ACADEMY OF HIGHER EDUCATION & RESERACH JSS Dental College & Hospital



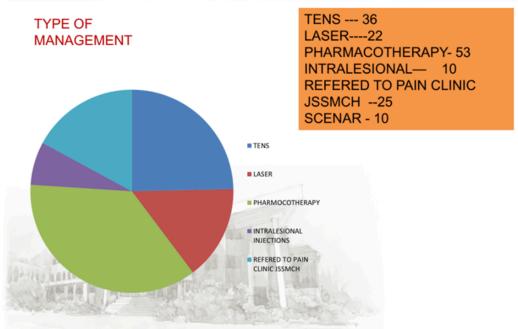
Distribution of Pain Patients 2021-2022

TMJ -70
NEUROLOGICAL -30
MUSCULOSKELETAL- 30
ORAL CANCER- 10
PSYCOLOGICAL - 02



JSS ACADEMY OF HIGHER EDUCATION & RESERACH JSS Dental College & Hospital





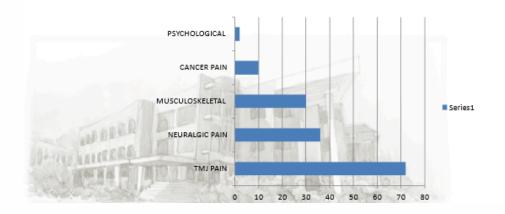


JSS ACADEMY OF HIGHER EDUCATION & RESERACH JSS Dental College & Hospital



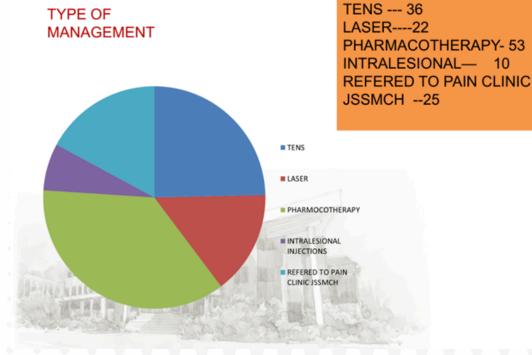
Distribution of Pain Patients 2022-2023

TMJ -60
NEUROLOGICAL -30
MUSCULOSKELETAL- 30
ORAL CANCER- 40
PSYCOLOGICAL - 04



JSS ACADEMY OF HIGHER EDUCATION & RESERACH JSS Dental College & Hospital







Activities Conducted

Workshop On Scenar in Management Of Orofacial Pain.Resource Person Dr Mythili, Imdsl Company.





CDE On Orofacial Pain. Resource Person Dr Ashwini In April 2019



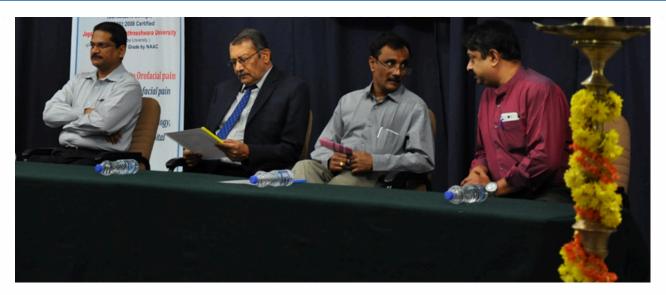
Workshop On Scenar in Management Of Orofacial Pain.Resource Person Dr Mythili, Imdsl Company.











CDE On Orofacial Pain. Resource Person Dr Ashwini In April 2019

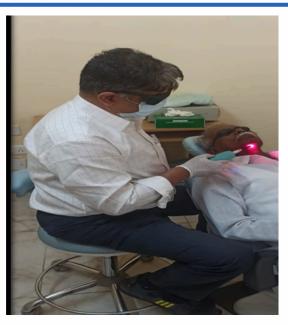


Panel Discussion At Iaomr Ug Conference At Virajpet ,Coorg On Various Aspects Of Oral Medicine Emphasising On Orofacial Pathologies And Pain. Resource Person Dr Mahesh K P



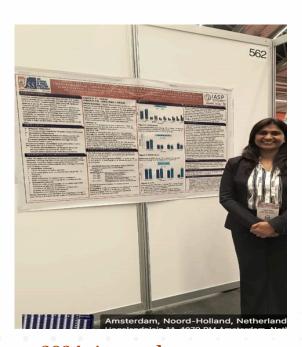


Panel Discussion at Iaomr Ug Conference At Virajpet, Coorg On Various Aspects Of Oral Medicine Emphasising Orofacial Pathologies And Pain. Resource Person Dr. Mahesh K P



Biostimulation Therapy for Pain Management In Oral Cancer Patients





Dr Pratibha M At IASP Conference 2024, Amsterdam





Student-faculty interaction



Dr Sai Krishna, Maxillo Facial surgeon has interaction with postgraduate students on a research project.



Interaction with postgraduate scholars on SCENAR as a mode of treatment of orofacial pain



Newer Pain Management Equipment



Portable Low-Level Laser



Scenar Portable Pain Control Unit



Future Plans

- 1.CDE on TMJ pain diagnosis and management Dec 2024 by Dr Atul
- 2. Developing mouth dissolving gelly as a analgesic in pediatric patients- Dr Mahesh K P
- 3. Conduct a symposium on orofacial pain March 2025

Summary

Orofacial pain has been a intergral part of jss dental college patient management system. sig orofacial pain also takes care of patients suffering from various pain manifestations. nearly 70 to 100 specific pain cases are delt from sig team. sig orofacial pain has impact on reducing the pain related disorders in turn improves quality of life of patient.