

Central Ayurveda Research Institute, Bengaluru

(Central Council for Research in Ayurvedic Sciences, Ministry of AYUSH, Govt. of India)

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Annual Report

April 2024- January 2025

Centre of Excellence for Research and Clinical services in Madhumeha (Diabetes mellitus) awarded by the Ministry of AYUSH, Govt. of India

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CARI Bengaluru

Activities and Achievements 2024-25

“Centre of Excellence in Research and Clinical Services for Madhumeha (Diabetes Mellitus)”

1. Background

Central Ayurveda Research Institute was awarded “Centre of Excellence in Research and Clinical services for Madhumeha (Diabetes mellitus)” by the Ministry of AYUSH, Govt of India in March 2021. The total fund sanctioned is Rs.7,24,80,400/- for a duration of four years (3+1year extension upto March 2023 due to Covid pandemic). The scheme got initiated in April 2021. With one year extension during Covid 19 i.e. 2022-23, the project will be technically getting completed during March 2025. The Ministry has been requested for the extension of the project on no additional cost basis to complete 2 clinical trials that are initiated during last year and sanction letter for the extension received on 12-03-2025 for a period of one year

Fund release details since inception:

| Instalments released | Total amount released | Date of Sanction |
|--|------------------------------|-------------------------|
| 1 st Instalment | Rs.2,88,00,000/- * | 05-03-2021 |
| 1 st part of 2 nd Instalment | Rs. 20,00,000/- | 20-01-2023 |
| 2 nd part of 2 nd Instalment | Rs. 50,00,000/- | 03-07- 2023 |
| 3rd part of 2 nd Instalment | Rs. 1,04,86,200/- | 08-11-2023 |
| 4 th part of 2 nd Instalment | Rs. 1,01,60,000 | 16-07-2024 |

* Rs.1,92,160/- was returned to the Ministry on 16-06-2021 as per the Ministry’s directions dated 15-06-2021.

2. Summary of achievements against deliverables (April 2024 to March 2025)

The Centre of Excellence scheme was sanctioned to CARI, Bengaluru with the following deliverables and targets for the second year (funds released in 4 instalments). Achievements against deliverables are tabulated below:

| Sl. No. | Deliverables | Achievements under the CoE scheme |
|----------------|---|---|
| 1. | Validation of Ayurveda approaches for Diabetes mellitus and documentation of outcome of approaches – 200 patients | Treatment approaches 1021 OPD patients have been documented and validation of outcome of 200 patients completed (against the target of 200 patients) during the reporting period. |
| 2. | Prevention and management of Diabetes with multi- | A total of 902 patients were under Multi specialty care during the reporting period: |

| | | |
|----|--|--|
| | speciality approach of 500 pre-diabetics and diabetics | <ul style="list-style-type: none"> • Yoga training to patients with special reference to diabetes management - 97 patients got benefited • Number of patients of Diabetes managed with combination of Modern medicine and Ayurveda is 805 • Patients are also managed by different specialists of Ayurveda such as Shalya tantra (Diabetic foot, Diabetic ulcer, Venous insufficiency, anorectal disorders, Diabetic carbuncles etc.)- more than 312 patients got benefited • Shalakya tantra (Diabetic retinopathy, cataract, hearing loss, tinnitus, periodontitis, gingivitis etc.)- more than 286 patients got benefited • Panchakarma- more than 72 patients got benefited |
| 3. | Initiation of Clinical trials for 2 selected anti-diabetic formulation | <ul style="list-style-type: none"> • Enrolments of 2 clinical projects initiated during the reporting period are completed and analysis are under progress (details are given below). • One more Clinical trial by including advanced outcome parameters such as gut microbiome has been initiated on 2 shortlisted formulations, finalised based on results of animal studies and pilot clinical trials and 52 patients enrolled during the reporting period out of 120 sample size. • Collaboration is with IISc and Samatvam, Bengaluru. |
| 4. | Development of SOPs for 2 ready-to-eat/cook food recipes through scientific validation | <ul style="list-style-type: none"> • SOPs for 2 ready-to-cook food recipes are developed in collaboration with Centre for Incubation, Innovation, Research and consultancy (CIIRC), Bengaluru. Products are developed by Himalaya wellness Company on pro-bono basis. • Clinical trial to evaluate two ready to cook dietary supplements for its antidiabetic property in patients of type - 2 diabetes mellitus has been initiated and 74 patients are enrolled during the reporting period. |
| 5. | Training on diabetes and diet to public and patients– 10 camps | <p>Conducted 30 trainings (in total) against the target of 10</p> <ul style="list-style-type: none"> • 10 Diabetes awareness talks for general public were conducted at various locations in Bengaluru with total beneficiaries being 748 (target has already been achieved in the previous year only). • In the previous year, 10 special training programmes were conducted for patients of Diabetes at CARI Hospital focussing on understanding Diabetes, Diet in Diabetes and Lifestyle modifications in Diabetes with total beneficiaries – 282. |

| | | |
|-----|--|--|
| | | <ul style="list-style-type: none"> 10 special training programmes were conducted for patients of Diabetes at CARI Hospital focussing on understanding Diabetes, Diet in Diabetes and Lifestyle modifications in Diabetes with total beneficiaries –347 during the reporting period. |
| 6. | Training for UG/PG students of Ayurveda- 10 programmes | 10 training programmes on Research methodology, Biostatistics, Chromatographic techniques and comprehensive management of Diabetes were conducted for Final year UG/First year PG students from different colleges of Karnataka with total number of trainees – 490. |
| 7. | e-healthcare initiatives- development of portal for interaction with patients or community through SMS alerts, tele-consultation, maintenance of online medical record of 500 patients with population coverage of 10000 | <p>E- health coverage is extended to more than 4,00,000 population</p> <ul style="list-style-type: none"> Institute website www.cari.gov.in is fully functional with total impressions of 1,86,683 during the reporting period. Lab and pharmacy data management software coverage is more than 39,000. Teleconsultation portal is operating over the website since the month of January 2023 and 124 patients were registered under the teleconsultation portal during the reporting period. Patient data of 1021 OPD patients is being maintained digitally during the reporting period. COE you tube channel is functional for reaching out to wider population. https://www.youtube.com/channel/UC3TBI39pJCDvKRqUQculpSg . Risk assessment portal is developed and made available in the institute website for the viewers to assess the risk of diabetes. |
| 8. | Yoga training camps to public and patients – 10 camps | 12 Yoga camps are conducted at CARI Hospital and in outreach camps with total beneficiaries 325 (target has already been achieved in the previous year). |
| 9. | Networking with local governance for camps – 30 camps | A total of 30 camps focussing mainly on Diabetes screening and management were conducted under the CoE scheme with total beneficiaries 915 ((target has already been achieved in the previous year). |
| 10. | Development of 5 IEC materials, audio visual aids | <ul style="list-style-type: none"> 10 IEC materials for general public are developed and uploaded on our website and social media platforms. COE you tube channel is functional for reaching out to wider population https://www.youtube.com/channel/UC3TBI39pJCDvKRqUQculpSg <p>Interviews with experts related to different aspects of Diabetes and video related to Diabetic diet are created for the CoE YouTube channel and 6 videos uploaded and are available on website as well as in CARI social media platforms.</p> |

3. Comprehensive report

The report is broadly put under the heads of Clinical Services, Outreach camps, Trainings and Research Activities, Upgradation of the Institute, Scientific Publications, IEC materials and Expenditure details.

3.1 Clinical services

3.1.1 Special OPD for Diabetes: Under the scheme, a specialized OPD for patients of Madhumeha is made functional since 22nd July 2021. The patients are provided with free consultation, medicines, laboratory investigations and food & lifestyle counselling. The specialized OPD has catered to 1574 diabetic patients and 8198 follow-up visits offering Ayurveda treatment totalling up to 9772 visits during the reporting period. 3400 patients have had free laboratory investigations under the scheme. An extensive and detailed data was collected from all the patients attending the special diabetes OPD under CoE, which was digitally managed using e-formats.

| Department | Male | Female | Total |
|------------------------|------|--------|-------|
| OPD New patients | 891 | 683 | 1574 |
| OPD Follow-up patients | 4739 | 3459 | 8198 |
| Total | 5630 | 4142 | 9772 |

3.1.2 Yoga advocacy: Free yoga classes were conducted at CARI Hospital and 194(for both OPD and IPD) patients have been benefitted during the reporting period. Classes are conducted under the guidance of professional Yoga teachers. A specialized Yoga module for Diabetes has been developed and is being instructed to patients of Diabetes on a regular basis. Translation of Common Yoga Protocol into Kannada has been done and in circulation.

3.1.3 Outreach Camps: Diabetes health camps were conducted from time to time to screen patients for diabetes and diabetic-related issues, provide health-related education, doctor consultation, distribute medicines to treat diabetic and pre-diabetic problems and refer patients to the hospital for further follow-ups as needed. These camps were based on diabetes care and awareness concepts, facilitating the general population to learn how to manage diabetes. Patients were motivated and supported by peers and devoted experts. 30 Medical camps were conducted under CoE, with the number of beneficiaries totalling to 915 (target has already achieved in the previous year)

| Sl. No. | Date | Camp location in Bengaluru | Beneficiaries | | |
|---------|------------|----------------------------|---------------|--------|-------|
| | | | Male | Female | Total |
| 1 | 25.05.2023 | Maruti nagar, Utharahalli | 5 | 16 | 21 |
| 2 | 16.06.2023 | Nayandahalli | 4 | 18 | 22 |
| 3 | 23.06.2023 | BESCOM, Talaghattapura | 30 | 0 | 30 |
| 4 | 18/07/2023 | BBMP office, Vijayanagar | 15 | 31 | 46 |
| 5 | 26/07/2023 | Kengeri, Satellite Town | 28 | 17 | 45 |

| | | | | | |
|-------|------------|--|-----|-----|-----|
| 6 | 11/08/2023 | Kaggalipura Police station | 18 | 3 | 21 |
| 7 | 17/08/2023 | Jain temple, Kaggalipura | 6 | 16 | 22 |
| 8 | 17/08/2023 | Shanthi Dama Old age home | 7 | 15 | 22 |
| 9 | 24/08/2023 | Anganwadi Maruthi nagara | 15 | 21 | 36 |
| 10 | 24/08/2023 | Ashraya seva trust | 2 | 32 | 34 |
| 11 | 31/08/2023 | Thulasi matta | 19 | 13 | 32 |
| 12 | 01/09/2023 | Tulasi Matta, Agara | 16 | 20 | 36 |
| 13 | 02/09/2023 | Tulasi Matta, Agara | 14 | 17 | 31 |
| 14 | 23/09/2023 | Royal palms layout, 1 block | 8 | 14 | 22 |
| 15 | 23/09/2023 | Royal palms layout, 2 block | 06 | 23 | 29 |
| 16 | 23/09/2023 | Royal palms layout, 3 block | 09 | 13 | 22 |
| 17 | 30/09/2023 | Vasudevapura | 09 | 12 | 21 |
| 18 | 30/09/2023 | Veerabadraswamy temple | 07 | 14 | 21 |
| 19 | 11/10/2023 | Kasturamma badavane, Kengeri | 10 | 08 | 18 |
| 20 | 20/10/2023 | Nayandadahalli | 05 | 32 | 37 |
| 21 | 28/10/2023 | Anjanapura | 09 | 14 | 23 |
| 22 | 03/11/2023 | Jawaharlal Nehru Centre For Advanced Scientific Research JNCASR –batch 1 | 24 | 15 | 39 |
| 23 | 03/11/2023 | JNCASR- batch 2 | 22 | 17 | 39 |
| 24 | 6/11/2023 | CSIR - National Aerospace Laboratories (NAL) | 26 | 10 | 36 |
| 25 | 6/11/2023 | CSIR - National Aero–batch 1space Laboratories (NAL) - batch 2 | 24 | 11 | 35 |
| 26 | 8/11/2023 | CSIR Fourth Paradigm Institute | 11 | 13 | 24 |
| 27 | 24/11/2023 | RV College (Department Civil engineering) –batch 1 | 20 | 07 | 27 |
| 28 | 24/11/2023 | RV College (Mechanical engineering) - batch 2 | 19 | 08 | 27 |
| 29 | 24/11/2023 | RV College (Electrical engineering) –batch 3 | 15 | 23 | 38 |
| 30 | 20/01/2024 | Sri Shanimahtma Temple | 30 | 29 | 59 |
| Total | | | 433 | 482 | 915 |

3.1.4 e-Healthcare initiatives: Under the Centre of excellence scheme a static website www.cari.gov.in has been functional for the promotion and introducing e-healthcare initiatives, compliant with Digital India, to reach out to wider population. Total population coverage under e-healthcare initiatives is 239689 during the reporting period.

| Sl. No | Initiative | Population coverage |
|--------|-------------------------|---------------------|
| 1 | e-Medical records (OPD) | 1021 |
| 2 | Website impressions | 186683 |
| 3 | Teleconsultation | 124 |
| 5 | Social media reach | 1409 |

| | | |
|---|----------------------|--------|
| 6 | AYUSLAB-Clinical lab | 8820 |
| 7 | AYUSLAB-Pharmacy | 41632 |
| | Total beneficiaries | 239689 |

3.2 Training programmes

Training programmes were conducted in two categories viz. 1. For patients 2. For public 3. For yoga 3. For Ayurveda UG/ PG students.

3.2.1 Ten training programmes for patients at CARI Hospital about Diabetes, its diagnosis, prevention and management through diet and lifestyle followed by special training on food recipes and diet in Diabetes with total beneficiaries -347

| Sl.No. | Date | Resource person | Participants |
|--------|------------|--|--------------|
| 1 | 30/04/2024 | Dr. Chandini Chandrasekharan, Consultant COE, CARI, Bengaluru | 30 |
| 2 | 21/05/2024 | Dr. Vrinda SRF, COE, CARI, Bengaluru | 30 |
| 3 | 11/06/2024 | Dr. Chandini Chandrasekharan Consultant COE, CARI, Bengaluru. | 35 |
| 4 | 03/07/2024 | Dr. Vrinda SRF, COE, CARI, Bengaluru | 31 |
| 5 | 06/08/2024 | Dr. Chaitra Consultant COE, CARI, Bengaluru | 35 |
| 6 | 10/09/2024 | Dr. Sharada SRF, COE, CARI, Bengaluru | 39 |
| 7 | 22/10/2024 | Dr. Poorvi SRF, COE, CARI, Bengaluru | 28 |
| 8 | 27/11/2024 | Dr Chaithra Rao Consultant COE, CARI, Bengaluru | 39 |
| 9 | 9/12/2024 | Dr Sharada, SRF, COE, CARI, Bengaluru | 40 |
| 10 | 10/12/2024 | Dr Poorvi SRF, COE, CARI, Bengaluru | 40 |
| | | Total | 347 |

3.2.2 Ten training programmes for general public to raise awareness about Diabetes, its diagnosis, prevention and management through diet and lifestyle led by Dr. Sulochana Bhat, the PI of the scheme with total beneficiaries-748 (target has already achieved in the previous year)

| Sl.No. | Date | location in Bengaluru | Resource person | Participants |
|--------|------------|----------------------------------|-----------------------|--------------|
| 1 | 23/06/2023 | BESCOM office, Thalagattapura | Dr. Kavya, Dr. Monica | 30 |
| 2 | 18/07/2023 | BBMP office, Vijayanagar, | Dr. Kavya N | 46 |

| | | | | |
|-------|------------|--|----------------------------|-----|
| 3 | 11/08/2023 | Kaggalipura Police station | Dr Vrinda | 21 |
| 4 | 17/08/2023 | Shantidhama Old age home | Dr Kavya N | 22 |
| 5 | 24/08/2023 | Anganawadi, Maruti Nagar | Dr kavya N | 36 |
| 6 | 24/08/2023 | Ashraya Seva trust | Dr Chandni | 34 |
| 7 | 21/09/2023 | Students of Jyoti Institute of Technology- batch 1 | Dr. Chandini Chandrashekar | 45 |
| 8 | 21/09/2023 | Students of, Jyoti Institute of Technology- batch 2 | Dr. Kavya | 38 |
| 9 | 21/09/2023 | Students of Jyoti Institute of Technology- batch 3 | Dr. Vrinda | 34 |
| 10 | 23/09/2023 | Royal palms layout, 1 st block | Dr. Kavya | 22 |
| 11 | 11/10/2023 | Kasturamma badavane, Kengeri | Dr. Vrinda | 18 |
| 12 | 20/10/2023 | Nayandadahalli | Dr. Kavya N | 37 |
| 13 | 28/10/2023 | Anjanapura, Bengaluru | Dr. Chandini | 23 |
| 14 | 31/10/2023 | Endocrinology Centre, Marenahalli | Dr. Vrinda Dr. Sharada | 150 |
| 15 | 03/11/2023 | Jawaharlal Nehru Centre for Advanced Scientific Research | Dr. Kavya N | 78 |
| 16 | 6/11/2023 | CSIR - NAL | Dr. Chandini | 90 |
| 17 | 8/11/2023 | CSIR Fourth Paradigm Institute | Dr. Kavya N | 24 |
| Total | | | | 748 |

3.2.3 Twelve Yoga training camps were held at various places in and around CARI Hospital with an intention to introduce Yoga and lifestyle changes in Diabetic and pre-diabetic populations with total beneficiaries -325(target has already achieved in the previous year)

| Sl. No | Details | Location | Date | Beneficiaries |
|--------|---|-------------------------------|------------|---------------|
| 1. | Yoga training for KIIMS MBBS Internees | CARI, Hospital | 4/04/2023 | 24 |
| 2. | Yoga training for KIIMS MBBS Internees | CARI, Hospital | 18/04/2023 | 28 |
| 3. | Yoga training for KIIMS MBBS Internees | CARI, Hospital | 25/04/2023 | 4 |
| 4. | Yoga training of patients and attenders | CARI, Hospital | 29/05/2023 | 24 |
| 5. | Yoga training and attenders | CARI, Hospital | 30/05/2023 | 32 |
| 6. | Yoga training of the officers & staff | BESCOM Office, Thalaghatapura | 23/06/2023 | 30 |
| 7. | Yoga training of police personnel | Police station, Kaglipura | 8/08/2023 | 35 |
| 8. | Yoga training of police personnel | Police station, Kaglipura | 11/8/2023 | 21 |
| 9. | Yoga for elderly | Shantidhama Old age home | 17/08/2023 | 22 |

| | | | | |
|-----|---------------------------------------|-------------------------------|------------|-----|
| 10. | Yoga for elderly | Ashraya seva trust, Bengaluru | 24/08/2023 | 34 |
| 11. | Yoga training of the officers & staff | NAL- batch 1 | 6/11/2023 | 36 |
| 12. | Yoga training of the officers & staff | NAL- batch 2 | 6/11/2023 | 35 |
| | | Total | | 325 |

3.2.4 Ten training programmes have been conducted for the students from different Ayurveda colleges of Karnataka regarding research methodology, biostatistics, chromatography techniques and comprehensive management of Diabetes mellitus which was attended by a total of 490 students under the mentorship of Dr. Sulochana Bhat.

| SL. No. | Date | Title | Resource persons | College | Participants |
|---------|------------|---|------------------------------|--|--------------|
| 1 | 18/05/2024 | Research Methodology | Dr. Chandini Chandrasekharan | Sri Sri Ayurveda Medical college and hospital, Bangalore | 51 |
| | | Biostatistics | Ms. Anjana K S | | |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Vrinda | | |
| 2 | 28/05/2024 | Research Methodology | Dr. Sharada Anand | Government Ayurveda Medical College, Bangalore | 42 |
| | | Biostatistics | Ms. Anjana K S | | |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Poorvi Priscilla A | | |
| 3 | 22/06/2024 | Research Methodology | Dr. Vrinda | Ramakrishna Ayurveda Medical College, Bangalore | 42 |
| | | Biostatistics | Ms. Anjana K S | | |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Chandini Chandrasekharan | | |
| 4 | 24/06/2024 | Research Methodology | Dr Chaithra Rao P | SDM Institute of Ayurveda & Hospital, Bangalore | 47 |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Poorvi Priscilla A | | |
| 5 | | Research Methodology | Dr. Sharada Anand | S D M Institute of Ayurveda & Hospital, Bangalore | 50 |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive | Dr. Vrinda | | |

| | | | | | |
|-------|------------|--|---|---|-----|
| | 25/06/2024 | Management of Diabetes mellitus | | | |
| 6 | 16/07/2024 | Research Methodology | Dr. Vrinda | Achutha Ayurveda Medical College, Hospital and Research Centre, Bengaluru | 45 |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Chandini Chandrasekharan | | |
| 7 | 27/07/2024 | Research Methodology | Dr Chaithra Rao P | Adichuchanagiri Ayurvedic Medical College, Bengaluru (Batch 1) | 41 |
| | | Biostatistics | Ms. Anjana K S | | |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Vrinda | | |
| 8 | 03/08/2024 | Research Methodology | Dr. Chandini Chandrasekharan | Adichuchanagiri Ayurvedic Medical College, Bengaluru (Batch 2) | 49 |
| | | Statistics | Ms. Anjana K S | | |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Vrinda | | |
| 9 | 01/10/2024 | Research Methodology | Dr. Sharada | KTG Ayurvedic Medical College, Bengaluru | 44 |
| | | Statistics | Ms. Anjana | | |
| | | HPTLC | Mrs. Supriya | | |
| | | Comprehensive Management of Diabetes mellitus | Dr. Chaithra Rao | | |
| 10 | 14/11/2024 | Introduction to Research Methodology | Dr. Nagesh, Retd Emeritus Professor, Dayananda sagar college of Dental science, Bengaluru | 1. Hill side Ayurveda Medical College, Bengaluru 2. Shri Shri Ayurveda Medical College, Bengaluru 3. Shri Kalabhairaveswara Ayurveda Medical College, Bengaluru | 79 |
| | | Emerging Trends in Diabetes management – An evidence- based approach to prevention and control | Dr. S. Srikanta, Endocrinologist, Samatvam endocrinology centre, Bengaluru | | |
| Total | | | | | 490 |

3.3 Research activities

The research activities under the CoE are being carried out under different sub-heads.

3.3.1 Drug development: The Centre of Excellence was mandated to initiate clinical trials on the shortlisted formulations during the reporting period.

| Sl. No | Formulation | Reference | Ingredients | Botanical source | Part used |
|--------|-------------------------------------|--|--------------|---|----------------|
| 1. | Varadi Kvatha (Kashaya kalpana) | <ul style="list-style-type: none"> • Sharangadhara Samhita-Madhyama Khanda - 2/108, • Gada Nigraha Kayachikitsakha nda - Pramehadhikara - 30 – 57 • Bhaishajya Ratnavali-Pramehadhikara | Hareetaki | <i>Terminalia chebula</i> Retz | Fruit |
| | | | Vibhitaki | <i>Terminalia bellirica</i> (Gaertn.) Roxb. | Fruit |
| | | | Amalaki | <i>Phyllanthus emblica</i> L. | Fruit |
| | | | Daru haridra | <i>Berberis aristata</i> DC. | Heartwood/Bark |
| | | | Musta | <i>Cyperus rotundus</i> L. | Rhizome |
| | | | Devadaru | <i>Cedrus deodara</i> (Roxb. ex D.Don) G.Don | Heartwood |
| 2. | Mustadi Kvatha (Kashaya kalpana) | <ul style="list-style-type: none"> • Gada nigraha-Kayachikitsakha nda - Pramehadhikara - 30 – 90 | Musta | <i>Cyperus rotundus</i> L. | Rhizome |
| | | | Indrayava | <i>Holarrhena antidysenterica</i> (Roth) Wall. ex A.DC. | Seeds |
| | | | Devadaru | <i>Cedrus deodara</i> (Roxb. ex D.Don) G.Don | Heartwood |
| | | | Hareetaki | <i>Terminalia chebula</i> Retz | Fruit |
| | | | Vibhitaki | <i>Terminalia bellirica</i> (Gaertn.) Roxb. | Fruit |
| | | | Amalaki | <i>Phyllanthus emblica</i> L. | Fruit |

During the previous years, 567 formulations pertaining to *Prameha* were compiled from 16 Ayurveda treatises. 150 single plants indicated in *Prameha* from 16 Nighantus were also compiled. Out of this search, four formulations having ingredients with known antidiabetic activity were short listed for pre-clinical studies. The literature search including Ayurveda texts and published research article of individual ingredients of selected 4 formulations were done.

Based on the leads collected from the literature, outcome of animal study conducted at Nagpur Veterinary College and pilot studies conducted at CARI, two formulations (Varadi kwatha and Mustadi kwatha) with the following details were finalised for further clinical trial by using advanced Outcome parameters such as gut microbiome.

These two formulations have been manufactured at Central Ayurveda Research Institute, Jhansi, in the form of Ghanavati. Standards and SoP for preparation are developed by CCRAS-CARI Jhansi.

During the current year, both these formulations are taken up further for the clinical trial by using advanced outcome parameters such as gut microbiome and 27 patients enrolled during the reporting period.

3.3.2. Clinical Research project: 04 research projects are undergoing as detailed below

3.3.2.1 Study title: Evaluation of bio-availability of Varadi and Mustadi ghana vati in healthy volunteers – A cross-over randomized clinical trial

- Principal investigator –Dr. Sulochana Bhat
- IEC obtained – F. No. 6-60/2022-23/CARI/BNG/CoE/2725 dt 22.02,2024
- CTRI registration – CTRI/2024/03/064377 on 19-03-24
- Date of initiation: 29-03-2024

The study is taken to evaluate the bio-availability of the above said drugs. Gallic acid has been used as the standard comparator. Study involves healthy human volunteers (n=12) receiving the test formulations in a cross over design. Varadi Ghana vati and Mustadi Ghana vati in the dose of 2000mg will be administered (on two different days with a washout period in between). Blood will be drawn at 7 different intervals on a single day from the volunteers. Separated plasma from the blood will be used for HPLC and HPTLC analysis to assess the bio-availability of gallic acid in the test formulations. Study will be conducted on two different days with a wash out period of a minimum of seven days.

Status – Enrolment completed, plasma samples have been collected and stored in -80 freezer, analysis of all the samples in HPTLC and HPLC is being conducted.

| Total no of subjects screened | Total no of subjects enrolled | Total no of subjects completed | Total no of subjects dropped out |
|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| 24 | 12 | 12 | 0 |

3.3.2.2 Study title: Evaluation of two ready-to-cook dietary supplements for its anti-diabetic property in patients of type-2 diabetes mellitus -A Randomized control trial

- Principal investigator – Dr. Sulochana Bhat
- Co-investigator – Dr. Shubhashree MN, Dr. Vrinda
- IEC Obtained – F.No. 6-60/2022-23/CARI/Bng/COE/2726 dt 22.02.2024
- CTRI registration – CTRI/2024/03/064207 on 15-03-24
- Date of initiation: 30-03-2024

A randomized control clinical trial to evaluate the efficacy of two ready-to-cook dietary supplement namely Yavadi soopa and Khadiradi yoga on blood glucose levels and agni. The sample size is 78 with three groups (26 in each group). Each group will be asked to retain their treatment and diet as it is. Group-1 is the control group, group 2 and group 3 will receive Yavadi soopa and Khadiradi yoga

respectively as an adjuvant diet supplement. Fasting blood glucose in the range 150-200 mg/dL and/or post prandial glucose of 180-300 mg/dL will be included in the study. Study period is of 42 days with 21day interval of follow up. FBS, PPBS, Plasma Insulin, HOMA IR and other safety parameters along with DSQ (Diabetes Symptom Questionnaire) and SNAQ (Simplified nutritional appetite questionnaire) will be evaluated in this study. Its effect on Agni and acceptability of the new form will also be assessed.

Status – Ongoing

| Total no of subjects screened | Total no of subjects enrolled | Total no of subjects completed | Total no of subjects dropped out |
|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| 116 | 74 | 35 | 9 |

3.3.2.3 Study title: Safety and efficacy of Mustadi ghana vati and Varadi ghana vati in Madhumeha/ type-2 diabetes mellitus: An open labelled randomized controlled active comparator (Metformin) Phase-II study.

- Principal investigator –Dr. Sulochana Bhat
- Co-investigator – Dr. S.H. Doddamani, Dr. Poorvi
- IEC Obtained – F.No. 6-60/2022-23/CARI/Bng/COE/2727 dt 22.02.2024
- CTRI registration – CTRI/2024/03/064184 on 15-03-24
- Date of initiation: 27-03-2024

The study is envisaged to assess the safety and anti-diabetic efficacy of two classical Ayurveda poly-herbal formulations, Mustadi ghana vati and Varadi ghana vati in 120 drug naive patients of type-2 diabetes mellitus in comparison with Metformin (active comparator). The assessment parameters include glycaemic parameters, drug safety and gut microbiome studies.

Status –Ongoing

| Total no of subjects screened | Total no of subjects enrolled | Total no of subjects completed | Total no of subjects dropped out |
|-------------------------------|-------------------------------|--------------------------------|----------------------------------|
| 69 | 52 | 1 | 8 |

3.3.2.4 Occurrence of diabetic peripheral neuropathy and its relationship with Prakriti among type-2 diabetic patients – A cross-sectional study.

- Principal investigator – Dr. Vidya Anchan
- Co-investigator – Dr. Chandini Chandrasekharan
- IEC Obtained – F. No. 6-60/2022-23/CARI/Bng/COE/2724 dt 22.02.2024
- CTRI registration – CTRI/2024/03/064317 on 18-03-24
- Date of initiation: 27-03-2024

A cross-sectional observational study will be conducted at CARI hospital among all adult known type-2 diabetic patients attending the out-patient department. After obtaining the written informed consent, a detailed medical history (disease and drug) and physical examination will be performed for eligible patients. All the enrolled patients will be subjected to a structured questionnaire, HbA1c,

RBS, neurological examination, INLOW'S 60-second diabetic foot screening and Prakriti assessment. The main objective of this study is to determine the occurrence of diabetic peripheral neuropathy and its relationship with Prakriti among type-2 diabetic patients. It is also intended to determine the risk factors associated with diabetic peripheral neuropathy, classify the risk for diabetic foot ulceration and amputation among type-2 diabetic patients. The total study period will be 12 months with a sample size of 400.

Status – Enrolment completed, analysis is under progress

3.3.3 Food development for diabetes

The Centre of Excellence is mandated to develop 2 ready to cook/eat food recipes for clinical trials. Collaboration with Centre for Incubation, Innovation, Research and consultancy (CIIRC), Bengaluru has been done through MoU. Discussions were held with scientists of NIN- Hyderabad, Ayurveda experts for development of ready to eat / cook anti-diabetic food preparations, based on the extensive literature search and Ayurveda principles of *pathyaahara*. Among them, 2 preparations were finalised which include Yavadi soopa (soup powder) and Khadiradi yoga (developed in the form of ready to dissolve pellets), their quality has also been ensured. Extraction of ingredients of Khadiradi yoga and its manufacturing (pellets) was done by Himalaya Wellness Company and Yavadi soopa (soup powder) was manufactured at CIIRC for free of cost and have been taken up for clinical trial and 30 patients enrolled during the reporting period.

a. Food formulation-1 - Khadiradi yoga- dispersible pellets

| Formulation | Reference | Ingredients | Botanical source | Part used | Ratio |
|---------------------------|---|-------------|-------------------------------------|-----------|--------|
| Khadiradi yoga | Chakradatta-Prameha chikitsa - 35 - 18 / pg 216 | Kadara | <i>Acacia polyantha Will.</i> | Bark | 1 part |
| | | Khadira | <i>Acacia catechu (L.f.) Willd.</i> | Heartwood | 1 part |
| | | Puga | <i>Areca catechu L.</i> | Nut | 1 part |
| Indication: Kshoudra meha | | | | | |

b. Food formulation-2-Yavadi soopa (ready to mix soup powder)

| Formulation | Reference | Ingredients | Botanical source | Part used | Ratio |
|--------------|----------------|-------------|---|-----------|--------|
| Yavadi soopa | Anubhoota yoga | Yava | <i>Hordeum vulgare</i> L. | Seeds | 1 part |
| | | Kulatha | <i>Macrotyloma uniflorum</i> (Lam.) Verdc | Seeds | 1 part |

| | | | | | |
|--|--|-------|---|-------|--------|
| | | Mudga | <i>Vigna radiate (L.)</i> <i>Wilczek</i> | Seeds | 1 part |
|--|--|-------|---|-------|--------|

3.3.4 Technical collaborations – continued from previous years

- MoU signed with Government Ayurveda Research Centre, Mysore (for collaboration on academic programmes, research partnerships, and training).
- MoU signed with IISc Bengaluru.
- MoU signed with CSIR-Central Food Technology Research Institute Mysore.
- MoU signed with Centre for Incubation Innovation Research and Consultancy (CIIRC).
- MoU signed with Samatvam Endocrinology Diabetes Center Bengaluru.
- Our advisory panel has the experts from NIMHANS, Bengaluru, Bangalore Medical College, Karnataka Institute of Diabetology, ICMR- NIN Hyderabad, National Centre for Cell Science (NCCS) Pune and Interactive Research School for Health Affairs (IRSHA) Pune.
- We also work closely with the Panchayat, Anganwadi, near by Community Health Centre, Primary Health Centre - for outreach activities, referrals etc.
- CCRAS-CARI Jhansi is our partner in preparation of standardised medicines. Himalaya Wellness Company has prepared the extracts and manufactured one of the food formulations.

3.3.5 IEC materials

The below IEC materials have been developed and are being distributed to public at CARI Hospital, and the soft copies are available on the website. The IEC materials and the videos of interviews with experts related to different aspects of diabetes and diabetic diet (prepared during previous years) are also available on website as well as in CARI social media platforms.

- i. Diabetic eye care charts for patients
- ii. Diabetic foot care charts for patients
- iii. Diabetic skin care charts for patients
- iv. IEC material on FAQs (Essentials of Madhumeha and its management)
- v. Flyer on Gestational Diabetes Mellitus in Kannada
- vi. Mustadi ghanavati and Varadi ghanavati in diabetes
- vii. Easy Yoga capsule in diabetes
- viii. Risk factors of Type 11 diabetes
- ix. Alarming signals of Madhumeha (diabetes)
- x. Chemistry behind familiar antidiabetic drugs

3.3.6 Upgradation of the Institute

- a. Hospital services-
 - ECG machine was purchased under CoE scheme for the upgradation of the Institute.
 - Nurse call system multi user was purchased under CoE scheme and installed for IPD section of the hospital.
- b. Botany section- upgradation of herbal garden.
- c. Drug Standardisation unit - Lab consumables were purchased under CoE scheme for the conduction of analysis in HPTLC and DSRU units.

- d. Software purchased- STATA/SE 18 statistical software installed on 27.12.2024 to carry out plan the research studies and analyse the data.
- e. Maintenance of website and e health services is ongoing.

3.3.7 Expenditure details

The total expenditure by the end of financial year 2024-25 is as below under different heads.

| Sub-heads | Total sanctioned in Rs. | Total expenditure in Rs. | Balance in Rs. |
|---------------|-------------------------|--------------------------|-----------------|
| Salary | 1,19,55,797.50 | 86,13,089.00 | 4,800.00 |
| Non-recurring | | 2,06,60.00 | |
| Recurring | | 31,31,308.50 | |
| Total | 1,19,55,797.50 | 1,19,50,997.50 | 4,800.00 |

3.3.8 Scientific Publications during reporting period

| Sl.No. | Title | Journal | Authors | Status |
|--------|---|--|--|-----------|
| 1. | A comparative phytochemical analysis and HPTLC fingerprinting of ardraka and shunti in different dosage forms and its relation to diabetes. | International Journal of Ayurveda and Pharma Research | 1. Dr. Vrinda 2. Mrs.H S Supriya 3. Dr. Sulochana Bhat | Published |
| 2. | Non-vegetarian diet as a risk factor of type 2diabetes: A retrospective study of cross-sectional population in Bengaluru | International Journal of Research in Ayurveda and Pharmacy | 1. Dr. Chandini Chandrasekharan 2. Dr. Sulochana Bhat 3. Dr. Raghavendra Naik 4. Ms. Anjana K S | Published |
| 3. | Impact of yoga on glucose reduction: A pilot study | International Journal of Yogic, Human Movement and Sports Sciences | 1. Monica K P 2. Dr. Sulochana Bhat 3. Dr. Chandini Chandrasekharan 5. Ms. Anjana K S | Published |
| 4. | Correlation between Knowledge attitude and Practice related to diabetes involving two Ayurveda and allopathy hospitals. | Journal of Integrated Health Sciences | 1. Dr. Vrinda 2. Dr. Sulochana Bhat 3. Dr Monica K P 4. Dr Kavya Ms. Anjana K S | Published |

| | | | | |
|----|---|--|---|--------------|
| 5. | Knowledge, attitude and practice related to diabetes with reference to Ayurveda and yoga | Indian Journal of Health sciences and Biomedical Research (KLEU) | 1. Dr. Vrinda 2. Dr. Sulochana Bhat 3. Ms. Anagha Jenu 4. Dr. Kavya 5. Dr. Monica K P | Under review |
| 6. | Study Protocol of a randomized open-labeled trial to validate the efficacy and safety of two instant beverages as adjuvant therapy in type-2 diabetes mellitus. | Journal of Indian system of Medicine | 1. Dr. Vrinda 2. Dr. Sulochana Bhat 3. Dr. Kavya 4. Ms. Anjana K S | Under review |
| 7. | Effect of four ayurvedic formulations on Streptozotocin-Induced diabetic Wistar rats | AYUHOME | 1. Dr. Sharada Anand 2. Dr. Sulochana Bhat 3. Ms. Anjana K S | Under review |

The Correlation between Knowledge, Attitude, and Practice Related to Diabetes Involving Ayurveda and Yoga in two Ayurveda and Allopathy Hospitals of Bengaluru

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Abstract

Introduction: Diabetes is classified as an epidemic disease necessitating utmost contemplation for both controlling its onset and managing the condition effectively. To achieve this, a fundamental awareness of diabetes and the benefits Ayurveda and yoga can provide to combat the disease must be familiarized. **Aims:** The objective of the study is to understand the awareness of diabetes, perception and practices related to it and the role of Ayurveda and Yoga in its management within the population. **Materials and Methods:** It is a multi-centric hospital-based analytical cross-sectional study with a sample of 1200 participants. Eligible candidates visiting two government Ayurveda hospitals and allopathy hospitals each situated in urban and rural regions of Bangalore situated in Southern India of South Asia were made to answer or fill the structured questionnaire. It was subsequently converted to a digital format for statistical analysis. Overall KAP scores were calculated using Bloom's cut-off point. P-value less than 0.05 and less than 0.001 were considered statistically significant. A Pearson correlation coefficient was employed to determine the relationship between knowledge, attitude and practice. **Results:** Our study showed good knowledge (49.58%) but moderate attitude (58.67%) and practice (47.5%) among the population. There was a weak but significant correlation between knowledge and attitude ($r=0.181$) as well as between knowledge and practice ($r=0.349$). But no correlation was found between attitude and practice ($r=0.048$). **Conclusions:** Combating the diabetes epidemic requires more than just raising awareness about the disease. Encouraging healthy behaviors and shifting people's perspective around lifestyle choices is paramount to effectively address the root cause of increasing rate of diabetes.

Keywords: Attitude, Ayurveda, Bengaluru, correlation, diabetes, knowledge, practice, South Asia, Southern India, yoga

INTRODUCTION

Diabetes is one of the leading causes of death and disability worldwide, impacting people irrespective of age, gender, and nationality.^[1] According to the global burden of disease, diabetes mellitus (DM) has resulted in 70.9 million DALYs, viz., disability-adjusted life year (a standardized metric to measure the overall burden of the disease in a population) in 2019, which is 2.8% of the total global DALYs.^[2] South Asia, which is home to approximately a quarter of the world's population, is undergoing an epidemiological transition with an explosion in the prevalence of noncommunicable diseases like diabetes. It was reported by the Indian Council of Medical Research that the diabetes epidemic had stabilized in developed states of India, but it was increasing in many other states.^[3] As per the study published in 2023, in India, the prevalence of diabetes is 10.1 crores.^[4] According to National Health Family

Survey-5 2023, around 10.7% of Karnataka's population has diabetes. In Bangalore, 19.4% of women and 21.3% of men suffer from diabetes.^[5]

International Diabetes Federation estimates that by 2045, approximately 783 million people will be living with diabetes. The key contribution to the rise of type-2 diabetes is urbanization, a decrease in physical activity, and an increase in the prevalence of obesity and overweight. However, diabetes can often be prevented, and its impact can be reduced by

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Research Article

A COMPARATIVE PHYTOCHEMICAL ANALYSIS AND HPTLC FINGERPRINTING OF ARDRAKA AND SHUNTI IN DIFFERENT DOSAGE FORMS AND ITS RELATION TO DIABETES

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Ginger, *Pramehagna*, Phytochemical screening, HPTLC, *Swarasa*, *Churna*, *Kashaya*, *Hima*, *Phanta*.

ABSTRACT

Ginger is a household spice used globally for different purposes. As per Ayurveda, it is considered to possess therapeutic properties for various ailments. Although ginger has *Pramehagna* (anti-diabetic) property, there are very few formulations for diabetes that contain this as an ingredient. However, some pharmaceutical and clinical studies have shown significant anti-diabetic property of ginger. According to Ayurveda, *Ardraka* (fresh rhizome) and *Shunti* (dry rhizome) have different properties and are widely used in many formulations. To analyze the difference between both forms of ginger in varied forms, phytochemical screening, and HPTLC study was done on *Ardraka swarasa* (juice of fresh rhizome), *Shunti churna* (powder), *Ardraka* and *Shunti Kashaya* (decoction of fresh and dry ginger), *Ardraka* and *Shunti Hima* (cold infusion of fresh and dry ginger), *Ardraka* and *Shunti phanta* (cold decoction of fresh and dry ginger). Alkaloids were present abundantly in *Ardraka swarasa*, *Ardraka kashaya*, *Shunti kashaya*, *Shunti hima* and *Shunti phanta*. Flavonoids were present in excess only in *Ardraka swarasa*. HPTLC analysis showed more peaks in *Kashaya* of both forms of rhizomes and *Ardraka phanta*.

INTRODUCTION

Ginger is an integral part of Indian cuisine which is commonly used in many dishes. Japan uses pickled ginger slices called *Gari* as a condiment, sliced ginger with sugar to make tea and ginger is commonly used in Western countries to flavor cookies and cakes [1]. It is also used as a home remedy for various disorders. Ginger is called *Ardraka* (wet ginger) and *Shunti* (dry ginger) in Sanskrit and has been extensively used in Ayurveda medicine. It is also referred to as "*Mahabheshaja*" [2] (abundance of medicinal property) and "*Vishwabheshaja*" [2] (universal medicine that can be used in all age groups for all diseases) signifying its magnitude of therapeutic potency. It is used as *Ekamoolika prayoga* (single drug prescription to treat and prevent disease) in various disorders like *Agnimandya* (loss of appetite), *Aruchi* (loss of taste), *Kasa* (cough), *Shwasa* (dyspnoea), *Hikka*

(hiccup), *Amavata* (rheumatoid arthritis), *Kati shoola* (Back pain), *Shotha* (oedema), *Hridroga* (heart disorders), *Sheetapitta* (allergic rhinitis), *Karna shoola* (ear ache) [3]. Ginger is the main ingredient in various compound formulations like *Ardraka khanda* and *Soubhagya shuntipaka*.

Although both *Ardraka* and *Shunti* exhibit some similar properties, they also vary in particular *Gunas* (property). Both have *Katu rasa* (pungent taste), *Ushna veerya* (hot potency), *Madhura vipaka* (sweet in post digestive state) and *Kaphavata shamaka* (subsides *Kapha* and *Vata dosha*) properties. But *Ardraka* is *Guru* (heavy), *Rooksha* (dry) and *Teeksha* (sharp) and it does *Bhedana* (strong laxative) and is used in *Aanaha* (flatulence), *Shoola* (pain) and *Vibandha* [4] (constipation) whereas *Shunti* is *Snigdha* (unctuous), *Mala graahi* (absorption) and *Vayu vibandhanut* (obstructs *Vata dosha*) [5]. *Ardraka* is found in *Ganas* (group of drugs with similar properties) like *Pippalyadi* [6], *Deepaniya* and *Shoolaprashamana ganas* [7] whereas *Shunti* is found in *Triptighna*, *Arshoghna*, *Trishnanigrahana ganas* [8].

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Research Article

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NON-VEGETARIAN DIET AS A RISK FACTOR FOR TYPE II DIABETES: A RETROSPECTIVE STUDY OF CROSS-SECTIONAL POPULATION IN BENGALURU, KARNATAKA, INDIA

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ABSTRACT

Background: Diabetes is a chronic condition that can be avoided or postponed via proper eating and weight management. Some research shows that the prevalence of type-II Diabetes increases from vegans to non-vegetarians. Additionally, the results of many studies have consistently connected consuming meat with a higher risk of developing Diabetes; more research would be beneficial to ascertain if a non-vegetarian diet can be considered a therapeutically important risk factor. Objective: To understand the association between non-vegetarian diet and type-II Diabetes. Methods: Retrospective OPD data from March 2022 to March 2023 of 1011 type-II diabetes patients, aged 24-85, without a history of high-fat diet or genetics, were included. Descriptive statistics were used to summarise demographic data to conclude. Categorical data were summarised using proportions, and continuous data were summarised using mean and standard deviation. The chi-square test was applied to test for associations. Results: The study also revealed that 720 (71.2%) subjects consumed a non-vegetarian diet. Among the study population, only 29.6% of the respondents were doing regular exercises. In this study, the mean (n=1011) BMI was 26.47 ± 4.32 kg/m² with a minimum of 11.5 and a maximum of 49.9. The chi-square test showed an association ($p < 0.001$) difference between the type of diet with respect to education, occupation, physical activity and BMI. Non-vegetarian diet was predominant across all socioeconomic and demographic categories, with a prevalence of high BMI and type-II Diabetes. Conclusion: Even though the study methodology cannot fully rule out the potential of confounding effects, the findings that a non-vegetarian diet is a risk factor for Diabetes offer clinical practitioners and those at risk with helpful direction and pave the way for positive behavioural adjustments.

Keywords: Non-vegetarian diet, Prameha, Type-II Diabetes

INTRODUCTION

Diabetes is a chronic illness that can be prevented or delayed by living a healthy lifestyle and maintaining a healthy weight. ¹ Maintaining a healthy body weight and lowering the risk of type-II Diabetes require eating a balanced diet and engaging in physical activity. Diabetes is correlated to Prameha roga,

understand the association between non-vegetarian diet and type-II Diabetes, and further study would be helpful to determine if a non-vegetarian diet can be therapeutically meaningful as a risk factor.

MATERIALS AND METHODS



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Impact of yoga on glucose reduction: A pilot study

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Abstract

Background: In the rising burden of type 2 diabetes mellitus (T2DM) cases in India, there is a crucial need for an effective, low-cost, sustainable intervention controlling diabetes and preventing complications. *Yoga* is now considered complementary to self-management of many stress-related disorders like diabetes, coronary artery disease (CAD), etc. *Yoga* practices benefit adults with type 2 diabetes (T2DM) in this background the study was conducted to observe changes in serum glucose levels, Body Mass Index (BMI), waist circumference, and Diabetes Symptom Questionnaire (DSQ).

Methods: This study aimed to introduce and validate the *Yoga* module in diabetic patients to *Yoga*. An abridged version, "*Yoga Capsule*" (YC) which comprehends *Asana*'s and *Pranayama*'s that are effective on diabetes was drafted with revisions subsequently made in consultation with renowned experts.

A pilot study (n = 30) was conducted to evaluate the role of *Yoga Capsule* (YC) as an add-on in reducing serum glucose levels in type 2 diabetes to assess HbA1c, changes in Body Mass Index (BMI), waist circumference, and Diabetic Symptoms Questionnaire (DSQ): At baseline and the end of 84 days.

Results: As mentioned, the YC was designed to introduce *Yoga* to known diabetics who are not into exercise or *Yoga*. There was a significant decrease (<0.01) in PPBS, BMI, weight, and DSQ from baseline to the end of the trial. The other variables FBS, HbA1c, and waist circumference didn't change significantly.

Conclusion: In this study, 15 minutes of *Yoga* practice for 3 months showed changes in PPBS, BMI, weight, and DSQ variables, hence it can be concluded that *Yoga* practice helps prevent the onset of diabetes and its complications.

Keywords: Yoga capsule, diabetes, yoga, asana, pranayama

4. Glimpses of activities (2024-25)

4.1. Patient training program





4.2 Students training program







4.3 Website and e-consultation facilities

The screenshot shows the homepage of the Central Ayurveda Research Institute (CARI) Bengaluru. The website is in English and features a purple header with navigation links: HOME, ABOUT US, DEPARTMENTS, HOSPITAL, COE, PHARMACOVIGILANCE, GALLERY, e-CONSULTATION, SWACHHATAHISEVA, eOFFICE, and CONTACT. The main content area includes a large image of the institute's building and a text block describing its history and research focus. The footer shows the temperature as 22°C and the date as 24-01-2025.

Central Ayurveda Research Institute (CARI) Bengaluru established as Regional Research Centre in 1971 was subsequently known as Regional Research Institute, National Dietetics Research Institute and Regional Ayurveda Research Institute for Metabolic Disorders before its upgradation as CARI in 2020.

CARI houses a multidisciplinary team engaged in diverse research and integrative healthcare activities. Clinical services are provided through its NABL and NABH accredited hospital wing. The institute focuses its research efforts primarily on metabolic disorders and Ayurveda dietetics, with additional domains covering outreach healthcare research, drug standardization, and medicinal plants research. Currently, CARI is conducting over 25 research projects jointly with prestigious institutions such as IISc Bengaluru, NIMHANS Bengaluru, ICMR-NITM Belagavi, CSIR-CFTRI Mysuru, ICAR-IIHR Bengaluru, University of Agricultural Sciences Bengaluru, Jawaharlal Nehru Medical College Belagavi, and University of Trans Disciplinary Health Sciences and Technology Bengaluru, among others. This collaborative approach underscores CARI's commitment to advancing Ayurvedic research and integrative healthcare practices, aiming to enhance understanding, treatment, and management of health issues through traditional knowledge and modern scientific methods.

The screenshot shows the e-Consultation form on the CARI website. The form is titled "e-Consultation form.....!" and includes fields for entering personal and contact information. A sidebar on the left encourages booking a time slot, stating "e-Consultation Time Monday to Saturday 2:00 PM to 4:30 PM". The form fields are as follows:

| Personal Information | |
|----------------------|---------------------|
| Enter your full Name | Enter Your Age |
| Enter Email Address | Enter Mobile Number |

| Address Details | |
|-----------------|--------------------|
| Enter your area | Your City |
| Enter State | Enter Postal Codee |

Please select Appointment Date & Slot



ಕೇಂದ್ರೀಯ ಆಯುರ್ವೇದ ಸಂಶೋಧನಾ ಸಂಸ್ಥೆ
केन्द्रीय आयुर्वेद अनुसंधान संस्थान
CENTRAL AYURVEDA RESEARCH INSTITUTE
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हिन्दी

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Integrated Risk Assessment for Madhumeha (Diabetes)

Please answer 25 questions to know your Diabetes risk.

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