

DIABETES MELLITUS AND HOMOEOPATHY

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Introduction

Population growth, ageing, urbanisation, unhealthy diets, obesity and a sedentary lifestyle are the main factors that explain the alarming upward trend in recent years in Diabetes mellitus. There are about 143 million sufferers in the world and this number is projected to rise to almost 300 million by the year 2025. The rising prevalence of diabetes mellitus is closely associated to industrialization and socioeconomic development in the developing countries. Twenty years ago Diabetes mellitus was considered an uncommon disease with an adult prevalence of 1-3% in European and North American populations and much rarer in developing countries. The extent of its emergence worldwide has become apparent only recently. In recent years and 2025, three countries with largest number of diabetics are and will be China, India and USA. In developing countries most of the affected are aged between 45 years and 64 years and the people will be affected by Diabetes mellitus in the most productive period of their lives.¹

About half the people worldwide who have diabetes are unaware of their condition although they are prone to develop serious complications. It is necessary to create increased awareness among the general public of the causes, symptoms, treatment and complications of Diabetes mellitus, so as to encourage prevention, earlier diagnosis and improved healthcare.¹

The Central Council for Research in

Homoeopathy has engaged itself in organised research in various fields since its inception in pursuit of providing the profession a choice of therapeutic approaches in the treatment of various diseases, new homoeopathic medicine through proving of drugs, clinically verified data etc. Diabetes mellitus is one of the clinical research problems under study at various institutes and units of the Council. This paper attempts to summarise different objectives in research on Diabetes under the various programmes undertaken by CCRH.

Drug Research

This programme is being carried out at Homoeopathic Drug Research Institute, Lucknow which was established in 1987 to carry out fundamental and applied research in the field of Homoeopathy. Under Drug Research programme, work on establishing the therapeutic action of homoeopathic drugs vis-à-vis their toxicological and pharmacological spectrum is undertaken with a view to find out the mechanism of action of homoeopathic drugs.

In-vitro trials have been conducted on experimental animals for hypoglycaemic activity of various homoeopathic drugs "It has been revealed during experimental trials on alloxan induced diabetised rats that *Cephalandra indica* Q, *Absinthium* D1/ *Resina laricis* D3, exhibit perceptible hypoglycaemic activity at a micro dose level ranging from 25 µml to 75 µml/100 gm. body weight (b.w.) through I.P. route of administration.

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Syzygium jambolanum Q has been found toxic at dose level of 50 µml /100 gm.b.w. similar to the corresponding control. *Abroma augusta* Q although has mild hypoglycaemic effect in doses of 50 µml. to 0.1ml. yet it does not stabilise blood sugar level corresponding to such activity. A sustained hypoglycaemic effect for 2 to 3 weeks, even after withdrawal of the drug and no toxicity were also observed with *Cephalandra indica* Q.²

In another experiment, it has been established that Alloxan when administered in material doses induces diabetes mellitus in experimental animals which closely resembles actual diabetes. When the same animals were administered Alloxan in potentised form viz. In 6x, 30x, 200x and 1000 x potencies there was significant recovery which was more pronounced and perceptible with 200x and 1000x potencies. A parallel study with dynamised and undynamised dilutions was also undertaken which established that only dynamised dilutions produced hypoglycaemic response. Hypoglycaemic effects of *Pterocarpus marsupium*, *Momordica charantia*, *Chionanthes virginica* and *Uranium nitricum* have been observed in similar experimental studies.³

Constant efforts are in progress to bring into light the effects of various other homoeopathic drugs, having potential of anti-diabetic activities.

Clinical Verification Programme

The Council under its clinical verification research programme aims to bring out most reliable prescribing indications and effective potencies of a group of drugs, which have either been proved by CCRH under its Drug Proving Research Programme or of certain partially proved drugs for a particular disease condition. The available symptomatic data of 67 drugs is being verified clinically and most of these drugs are of indigenous origin. Under this programme *Cephalandra indica*, *Gymnema sylvestre*, *Abroma augusta* and

Syzygium jambolanum have been clinically verified for cases of diabetes mellitus.⁴ The data of *Abroma augusta* collected from the provings conducted under CCRH also brought out the symptomatology of diabetes mellitus in its pathogenesis which has been confirmed by clinical verification studies.⁵

Clinical Research in Tribal Areas

Diabetes mellitus was also found prevalent in some of the tribal pockets during the survey conducted by units of CCRH located in predominantly tribal areas of the country from 1984 to 1987. This initiated the Council to undertake research studies on Diabetes mellitus at Clinical Research Unit, Pondicherry and Vijayawada. These units have been assigned homoeopathic medicines which are mostly partially proved or infrequently used in clinical practice but are said to have traditional or empirical use or have a special affinity for the diseased organ. The following table shows the medicines which have been found effective so far in cases of diabetes mellitus.⁴

Table-1

| Name of medicine | Prescribed | Effective | % |
|------------------------------|------------|-----------|---------|
| <i>Abroma augusta</i> Q | 109 | 44 | (44.4%) |
| <i>Cephalandra indica</i> Q | 226 | 73 | (32.3%) |
| <i>Uranium nitricum</i> 3x | 110 | 57 | (51.8%) |
| <i>Insulinum</i> 3x | 129 | 33 | (25.6%) |
| <i>Syzygium jambolanum</i> Q | 192 | 81 | (42%) |
| <i>Glycerinum</i> 30 | 54 | 07 | (13%) |

Clinical Research Programme

The Council initiated the project to clinically verify the hypoglycaemic effects of *Cephalandra indica* on patients of Non-insulin Dependent Diabetes Mellitus (NIDDM), after observing the results of animal experimentation conducted at HDRI, Lucknow which revealed that *Cephalandra indica* Q did not show any toxicity and blood sugar levels were maintained and stabilised even after with-

drawal of the drug.² This project was initiated in 1987 at Regional Research Institute, New Delhi which is continued and is also being studied at Clinical Research Unit, Chennai (since 1989) and Extension Unit of Drug Standardisation Unit, Hyderabad (since 1992).

Cephalandra indica belongs to the *Cucurbitaceae* family and is commonly known as Kandri ki bill in Hindi. It is a perennial creeping herb found to grow abundantly in Bengal and other parts of India. It possesses the reputation of being an excellent remedy in reducing the amount of sugar in urine of patients suffering from diabetes mellitus and mitigating their sufferings.

The Ayurvedic physicians of our country use the extracted juice of the leaves to allay the burning pains of poisonous boils, carbuncles and the general burning pains; it is also used for bloody dysentery, in biliousness and diabetes mellitus.⁶

Material and Methods

A total of 204* subjects were studied of varying age groups for a period ranging from 3 months to 9 years. All the subjects belonged to primary diabetes predominantly NIDDM. 84% of them were having complaints from more than a year. Heredity in 49% of cases and obesity in 7% of cases were found to be predisposing factors.

All subjects were treated under two categories.

Category I : Purely on Homoeopathic treatment. Under this category cases diagnosed initially at our unit and taking no other treatment, and cases of mild to moderate intensity were taken up.

* Cases studied at Extension Unit of Drug Standardisation Unit, Hyderabad.

Category II : A combination of allopathic (oral hypoglycaemic agents) and homoeopathy. Under this category cases of severe and diabetes mellitus cases already taking allopathic drugs (for diabetes mellitus) or for its chronic complication were taken up.

All the subjects were treated with *Cephalandra indica* Q in divided drop doses, 1 drop/kg of body weight. Serial estimation of fasting and post prandial (2 hrs. after full meal) blood sugar levels were monitored and compared to pre-study levels. Standard diet charts were provided to the subjects alongwith an advise to do moderate exercises regularly.

Results

Out of 204 subjects, 19 cases did not report as such the results of only 185 cases are discussed. It was seen, as evident from Table-2 that 102 cases out of 185 cases showed improvement in varying degrees in both category I and II, and rest of the cases were still under observation.

Table-2
Improvement index

| Treated only with homoeopathic medicine (category I) | |
|--|----|
| Total no. of cases | 92 |
| Improved* | 45 |
| Under observation | 47 |
| Advised allopathy medicine alongwith homoeopathy (category II) | |
| Total no. of cases | 93 |
| Improved * | 57 |
| Under observation | 36 |

* Index of improvement.

Marked improvement (when patient is asymptomatic and blood sugar touches normal level)

Moderate improvement (Symptomatic relief with more than 50% reduction in increased blood sugar level but persisting above normal range.)

Mild improvement (symptomatic relief with less than 50% reduction in increased blood sugar level but above normal range (and/or) subjects with marked improvement showing recurrence in same or less intensity)

Table-3
Pathological Findings

| Fasting Blood Sugar Level | Pre-treatment | Post treatment |
|---------------------------|---------------|----------------|
| 80-120 mg/dl | 32 | 41 |
| 120 - 180 mg/dl | 94 | 73 |
| 180 - 250 mg/dl | 42 | 55 |
| 250 mg/dl and above | 17 | 16 |

| Post Prandial Blood sugar level | Pre-treatment | Post treatment |
|---------------------------------|---------------|----------------|
| 130 - 180 mg/dl | 07 | 39 |
| 180 - 250 mg/dl | 70 | 74 |
| 250 - 300 mg/dl | 55 | 37 |
| 300 mg/dl and above | 53 | 35 |

| Urine sugar | Before treatment | After treatment |
|--------------|------------------|-----------------|
| Nil | 01 | 04 |
| 1% - 1.5% | 49 | 33 |
| 1.5% - 2% | 18 | 05 |
| 2% and above | 06 | 01 |

The table above indicates definite improvement trends in the ranges of blood sugar fasting & PP as well as urine sugar. The improvement of cases was also studied on a 4 point scale using subjective and objective symptoms as a guide.

Table-4
Response to Treatment Regarding Drug Picture of *Cephalandra indica*

| | Number of cases | |
|---|-----------------|-----------------|
| | Prescribed | Found Effective |
| Excessive dryness of mouth with thirst agg. after urination | 42 | 23 |
| Loss of appetite | 09 | 04 |
| Redness of face | 05 | 03 |

| | | |
|-------------------------------------|----|----|
| Fullness of abdomen with distension | 49 | 21 |
| Profuse urination | 44 | 22 |
| Presence of sugar in urine | 27 | 08 |
| Weakness/exhaustion after urination | 54 | 24 |
| Morose | 21 | 07 |
| Fretful | 13 | 05 |
| Disinclined to do work | 36 | 08 |
| Giddiness agg. after urination | 39 | 13 |
| Burning/face/eyes etc. | 12 | 09 |

Table-5
Response to Symptoms Related to Diabetes Mellitus

| | Number of cases | | |
|---------------------------|-----------------|----------------|--------------|
| | Prescribed to | Disappeared in | Mitigated in |
| Polyuria | 127 | 40 | 29 |
| Polydipsia | 121 | 45 | 33 |
| Polyphagia | 97 | 30 | 30 |
| Vaginitis/Pruritis vulvae | 14 | 05 | 08 |
| Itching | 36 | 11 | 23 |
| Cramps in legs | 86 | 18 | 38 |
| Lassitude | 70 | 12 | 39 |
| Progressive weakness | 82 | 14 | 37 |

Besides the above symptoms it was observed that *Cephalandra indica* Q was also found efficacious in preventing peripheral vascular disease which is highly prevalent in the patients suffering from Diabetes mellitus, besides controlling the blood sugar levels. There was improvement in intermittent claudication (15:4)*; muscle cramps (21:10); wasting and weakness of pelvic girdle (13:2) cases. (*The first figure in parenthesis denotes the no. of subject/s who reported these symptoms and the second figure no. of cases improved after treatment).

Conclusion

The results definitely show that *Cephalandra indica* Q possesses hypoglycaemic effect as shown by the reduction in sugar levels (Table-3) and also helps in mitigating the sufferings of the patients of Diabetes Mellitus (Table-5). No toxic effects of this drug were reported in any of the patients. The studies are continuing with addition to study the action of few more homoeopathic drugs like *Rhus aromatica* Q and *Chionanthes* Q as recommended by the Scientific Advisory Committee of CCRH.

References

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....."Whoever thought that the medicinal virtues of drugs could be developed in an-infinite series of degrees by means of triturating and shaking of the raw materials?"

S. Hahnemann
Chronic Diseases (by Hempel), p.156
