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# HomeoBuzz

CONTINUING MEDICAL INFORMATION

Vol. 15, No. 04, July 2019, Total No. of Pages 16

Dear Readers,

Homoeopathy is growing its roots amongst Indian healthcare system owing to its wondrous curative principles and miraculous results in treating a diverse range of maladies. The Lok Sabha is a mini representation of Indian population and when the sound of Homoeopathy resonates in the lower house of the parliament, it shows the increasing popularity of the therapy. It is always a pleasure to hear applaudable words for homoeopathy which has since its time of inception stood against dismissals and rejections.

Mr. Shripad Naik proposed The Homoeopathy Central Council (Amendment ) Bill 2019 which will allow one year extention of term for Board of Governers to re-constitute the Council. According to the Ayush Minister this will help in the formation of a more efficient Council and in turn will show positive impact upon the homoeopathic education system. Suggestions came in for the provision of a Homoeopathy Doctor at all PHCs and the appointment of a Homoeopathy doctor at the Rashtrapati Bhawan Clinic too. Silver linings seem to be emerging out of the shady clouds over Homoeopathy... in baby steps though!

The growth of any organization largely depends upon the growth of the sector, from which it has originated. The testimonials shared by the parliamentarians over their experiences with Homoeopathy prove the paramount scope of this therapy in future too. We just have to sincerely keep on treading with a positive approach and an undeterred will power to bring Homoeopathy to mainstream health-care system as the term "alternative therapy" attached to it, pulls back the potential that it holds as a therapeutic science. Rather the entire medical industry should improvise to "integrated therapeutics", instead of working in fractional systems of mainstream and alternative therapies and set an exemplary health-care system for the whole world.

This is sure to happen and I hope to see this happening soon for the benefit of all.

Dear Doctors,

Practicing medicine is one of the greatest experiences that a doctor gets after a long industrious term of theoretical studies, and with every successful case there is a deep satisfaction which is truly unmatchable. Removing the pains, sufferings and making the lives healthier becomes the sole objective of doctors as they start practicing. But then there are failures too! The fact that doctors are human beings like all other professionals is easily forgotten by the patients once they are met with dissatisfaction in the course of treatment. In one such incident two interns were assaulted in a Kolkata hospital by the attendants of a 75 year old patient who died from heart attack in the course of treatment. This is utterly disappointing, threatening the basic human rights of the medicos all over the country. The government should make security provisions for doctors on duty, and strict action should necessarily be taken against the offending attendants who threaten the spirit of medical profession.

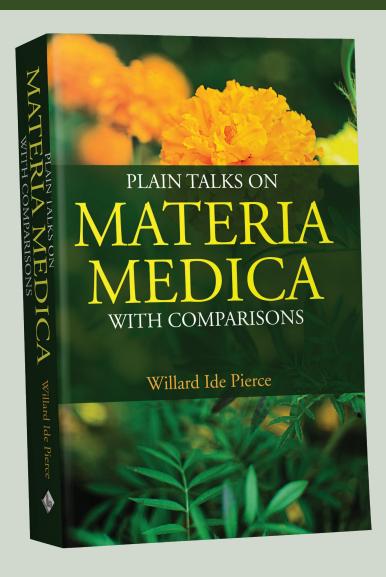
In another set of events, Chamki fever outbreak in Bihar brought the dilapidated healthcare infrastructure of the state at prime target. Scarcity of medicines and efficient doctors along with the prevalent malnutrition among the children led to the health crises engulfing more than 150 lives. Districts of Eastern U.P. and Bihar are endemic zones for Japanese Encephalitis and every year the outbreak of Brain fever takes a heavy toll on public health in these areas. There are around nine nutrition supplementation programs running in India including Mid Day Meals, Integrated Child Development Services Scheme, Balwadi Nutrition Programs, Special Nutrition Programs etc. Despite of all these measures, malnutrition still remains a major paediatric health issue which needs more focused efforts to be made at ground level and a united intention of the country to stand and fight against hunger and malnutrition among our children.

Like every drop in the ocean counts, similarly every little effort that we can make to improve Nation's healthcare status will show its impact in the times to come.

Kuldeep Jain Chief Editor

**Dr. Vasundhara** Editor

# A BOOK THAT WILL KEEP YOU HOOKED



- This book gives a combined understanding of the Materia Medica and Repertory with comparisons.
- It also includes the preparation and the details of the proving of different drugs.
- It was arranged to be of assistance in clinical practice, so the symptoms have been sought for. Also, differentiation has been made for the symptoms at relevant places.
- Allen's handbook used as a guide for the compilation of the content. In case of other additions, acknowledgment has been given at the end of each symptom so that the authority can be readily consulted.

ISBN: 978-81-319-6315-9 | ₹ 199 | 800pp

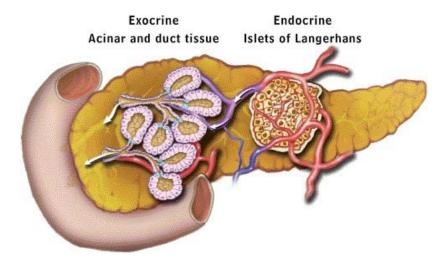
# **DIABETES**



# According to WHO1:

- The worldwide prevalence of Diabetes has increased from 4.7% in 1980 to 8.5% in 2014, in adults over 18 years of age.<sup>1</sup>
- Blindness, kidney failure, heart attacks, stroke and lower limb amputation are major complications of diabetes.<sup>1</sup>
- Almost 50% of all deaths ascribable to hyperglycemia occur before the age of 70 years.<sup>1</sup>
- Diabetes can be treated and its consequences avoided or delayed with diet, physical activity, medication and regular screening and treatment for complications.<sup>1</sup>
- Diabetes is emerging as the seventh leading cause of death world over.<sup>1</sup>

**Pancreas** is an accessory digestive organ which serves both exocrine and endocrine functions. It lies in upper left part of abdomen behind the stomach. There are multiple clusters of secretory cells known as "acini" which form the **exocrinal** portion of pancreas. The pancreatic juice contains important digestive enzymes like trypsinogen, chymotrypsinogen, amylase and lipase that help in the process of digestion.



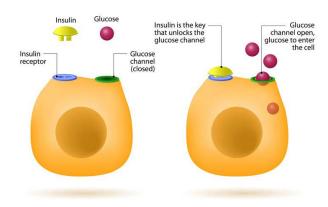
The **endocrinal** portion of pancreas consists of islets of Langerhans, islands of special cells surrounding the acini. These special cells are of 4 types- alpha, beta, delta and a small number of pp-cells. The beta cells, constituting about 60 per cent of all the cells of

# DIABETES

the islets, lie in the middle of each islet and secrete insulin and amylin. The alpha cells, about 25 per cent of the total, secrete glucagon. And the delta cells, about 10 per cent of the total, secrete somatostatin. The PP cells, are present in small numbers in the islets and secrete a hormone called pancreatic polypeptide.<sup>2</sup>

Our understanding of Diabetes and its etiology has evolved over a long period. Insulin was first isolated from the pancreas in 1922 by Banting and Best.<sup>2</sup> At this point of time

## **HOW DOES INSULIN WORK?**



Diabetes was understood as a monohormonal disorder which embarked upon insulin as the main pharmacological treatment.<sup>3</sup>

Thereafter in 1950s Glucagon, a hormone secreted by  $\alpha$ -cells was identified, having important role in glucose metabolism, giving a bi-hormonal definition to diabetes. Later in 1987, another  $\beta$  - cell hormone "amylin" was reported having a complementary role to that of insulin and was also found to be deficient in people with diabetes.<sup>3</sup>

In the mid 1970s, certain gut hormones like "Incretin" a glucagon-like peptide-1 (GLP-1) were identified having important role in glucose homeostasis.

These researches gave a multi- hormonal framework to our previous mono-hormonal version of DM.

### NORMAL PHYSIOLOGY

Dietary carbohydrates are broken down to glucose which is absorbed from the gut for the provision of body's energy supply. Absorption of glucose results in greater concentrations of it in circulation, triggering  $\beta$  - cells to secrete insulin. There is a post meal surge of insulin which helps in transportation of glucose into the cells and its storage majorly in liver, skeletal muscles and adipose tissue. Insulin has an inhibitory effect on the  $\alpha$ -cells, suppressing the secretion of glucagon.

Glucagon acts antagonistically to insulin as it releases glucose stored in cells, into the

# FACTORS MAINTAINING BLOOD GLUCOSE



Factors leading to depletion of glucose in blood

- Utilization by tissues for energy
- Glycogen synthesis
- Conversion of glucose into fat
- Hypoglycemic hormone

circulation through glycogenolysis (catabolises glycogen to glucose) and gluconeogenesis (synthesis of glucose from non-carbohydrates in liver) at the time of energy demand.

The **plasma glucose concentration** at any time is the function of the rate of appearance of glucose into the circulation, equated by the rate of its disappearance from the circulation. The appearance and disappearance of glucose in the circulating

# DIABETES

plasma was earlier believed to be the effect of insulin alone, but with the identification of other pancreatic and gut hormones it is now understood as a synchronized function of multiple hormones viz. insulin, glucagon, amylin, GIP (glucose-dependent insulinotropic peptide – gut hormone) and GLP-1 (Glucagon like Peptide)or incretin.<sup>3</sup>

# HYPERGLYCEMIA – DIABETES MELLITUS

Diabetes mellitus(DM) is a health condition where body's glucose metabolism gets dysregulated resulting in "hyperglycemia" or increased levels of glucose in circulating blood. The normal range of blood glucose in fasting is from 70 to 99 mg/dl . Persons having fasting blood glucose in the range 100 -125 mg/dl are considered as pre-diabetic which implies that they are predisposed to diabetes but are not diabetic.

According to American Diabetes Association (ADA) Diabetes can be classified as:

- 1. Type 1 diabetes (due to autoimmune  $\beta$ -cell destruction, usually leading to absolute insulin deficiency)<sup>5</sup>
- 2. Type 2 diabetes (due to a progressive loss of  $\beta$ -cell insulin secretion frequently on the background of insulin resistance)<sup>5</sup>
- 3. Gestational diabetes mellitus (GDM) (diabetes diagnosed in the second or third trimester of pregnancy that was not clearly overt diabetes prior to gestation)<sup>5</sup>
- 4. Specific types of diabetes due to other causes, e.g., monogenic diabetes syndromes (such as neonatal diabetes and maturity-onset diabetes of the young [MODY]), diseases of the exocrine pancreas (such as cystic fibrosis and pancreatitis), and drug- or chemical-induced diabetes (such as with glucocorticoid use, in the treatment of HIV/AIDS, or after organ transplantation)<sup>5</sup>

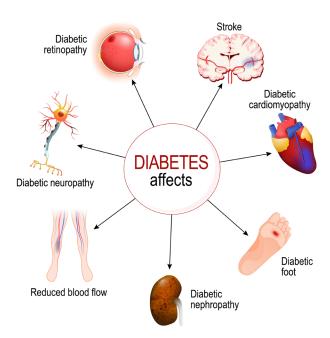
There is increasing recognition of other forms of diabetes which share the features of both type 1 and type 2 diabetes. In both types there is a preceding phase of dysregulated glucose metabolism followed by either total insulin deficiency (type 1) or the development of variable degree of insulin resistance, impaired insulin secretion, and increased glucose production (type 2).<sup>4</sup>

Hyperglycemia in type 2 diabetes can result from a range of distinct genetic and metabolic defects in insulin action and/or secretion. Endocrinopathies such as Acromegaly and Cushing's disease can also cause DM by their antagonistic effect on Insulin. A form of acute onset of type 1 diabetes, termed fulminant diabetes, has been noted in Japan and may be related to viral infection of islets.<sup>4</sup>

### **RISK FACTORS:**

- Family history or genetic predisposition
- Obesity
- Dyslipidemia with HDL less than 40mg/dl
- History of hypertension, gestational diabetes or Polycystic Ovarian Syndrome.
- Racial predisposition.
- Sedentary lifestyle with high intake of dietary carbohydrates.





## **COMPLICATIONS:**

Secondary pathophysiological changes appear as complications associated with DM. Such as cardiovascular diseases, nephropathies, neuropathies resulting in non traumatic lower extremity amputations and amaurosis.<sup>4</sup>

Diabetic Keto-acidosis is a serious complication of uncontrolled DM, when the body starts burning fats for its energy requirements, due to non-availability of glucose to the cells. A fruity breath odor accompanied by high blood glucose, nausea, vomiting, confusion and dyspnoea are the usual symptoms.

## **DIAGNOSIS**

Glucose tolerance or the status of its homeostasis can be categorized as: normal glucose homeostasis, DM, or impaired glucose homeostasis. The assessment of which can be done through -The fasting plasma glucose (FPG), The response to oral glucose challenge, or The hemoglobin A1c (HbA1c). FPG <5.6 mmol/L (100 mg/dL), a plasma glucose <140 mg/dL (11.1 mmol/L) following an oral glucose challenge, and an HbA1c <5.7% designate normal glucose tolerance.<sup>4</sup>

FPG  $\geq$ 7.0 mmol/L (126 mg/dL), glucose  $\geq$ 11.1 mmol/L (200 mg/dL) 2 h after an oral glucose challenge, or an HbA1c  $\geq$ 6.5% imply the diagnosis of DM.<sup>4</sup>

A random plasma glucose concentration ≥11.1 mmol/L (200 mg/dL) accompanied by classic symptoms of DM (polyuria, polydipsia, weight loss) is also diagnostic of DM.<sup>4</sup>

Markers of abnormal Glucose homeostasis:

- FPG =5.6–6.9 mmol/L (100–125 mg/dL), which is defined as impaired fasting glucose (IFG)
- Plasma glucose levels between 7.8 and 11 mmol/L (140 and 199 mg/dL) following an oral glucose challenge, which is termed impaired glucose tolerance (IGT)
- HbA1c of 5.7–6.4%.

The above 3 criterias identify persons with a greater risk of developing DM and its complications and should be counseled about ways to cut down the risk.

### **CLINICAL APPROACH**

Diagnostic Classification should be done for patients presenting with DM.

• Patients with type 1 DM frequently present with: (1) onset of disease prior to age 30 years; (2) lean body habitus; (3) requirement of insulin as the initial therapy; (4) propensity to develop ketoacidosis; and (5) an increased risk of other autoimmune

disorders such as autoimmune thyroid disease, adrenal insufficiency, pernicious anemia, celiac disease, and vitiligo.<sup>4</sup>

• On the contrary, individuals with type 2 DM often present with the following features: (1) develop diabetes after the age of 30 years; (2) are usually obese (80% are obese, but elderly individuals may be lean); (3) may not require insulin therapy initially; and (4) may have associated conditions such as insulin resistance, hypertension, cardiovascular disease, dyslipidemia, or PCOS.<sup>4</sup>

An assessment of symptoms and signs of Acute Hyperglycemia and screening for the chronic complications associated with DM should be done with history and thorough physical examination of the patient. Weight, hereditary predisposition, risk factors for cardio- vascular disease, exercise, diet, smoking and alcohol habit should be enquired for. Symptoms of hyperglycemia viz polyuria, polydipsia, weight loss, fatigue, weakness, blurry vision, frequent superficial infections (vaginitis, fungal skin infections), and post traumatic slow healing of skin lesions should be looked out for.<sup>4</sup>

Patients with stablished DM should be assessed for prior HbA1C levels, results of self glucose monitoring, hypoglycemic episodes, presence of DM associated complications and the knowledge level of the patient about the management of DM.<sup>4</sup>

Glucose dysregulation should be prompltly treated with medicines and optimum plasma glucose levels should be maintained with dietary regulations and moderate physical activity.

# Homoeopathy for diabetes

Individualized homoeopathic treatment, with recommended clinical management, dietary regulation and regular monitoring of plasma glucose levels yields safe and sustainable results in DM. Omeo Diabetes is a reliable combination of herbs which have proven efficacy in reducing blood glucose and boosting insulin production by the pancreatic cells.

### References:

- 1. DIABETES; https://www.who.int/news-room/fact-sheets/detail/diabetes; accessed on 7-6-2019
- 2. Arthur C. Guyton, John E. Hall Textbook of Medical Physiology; 11th Edition
- 3. Stephen L. Aronoff et. al. "Glucose Metabolism and Regulation: Beyond Insulin and Glucagon"; http://spectrum.diabetesjournals. org/content/17/3/183; accessed on 7-6-2019
- 4. KASPER et al. Harrison's Principles of Internal Medicine; 19th Edition
- 5. Classification and Diagnosis of Diabetes: Standards of Medical Care in Diabetes-2018; American Diabetes Association Diabetes Care 2018 Jan; 41(Supplement 1); http://care.diabetesjournals.org/content/41/Supplement\_1/S13; accessed on 11-6-2019



# DIABETES - A REPERTORIAL APPROACH

# <u>Single remedy rubrics for Diabetes Mellitus</u> <u>from Synthesis Repertory.</u>

### Diabetes Mellitus-

- Accompanied by abscesses Arsenicum album
- Accompanied by acne Arsenicum bromatum
- Accompanied by albuminuria Helonias
- Accompanied by apoplexy Conium mac.
- Accompanied by eczema- Insulinum
- Accompanied with gallstones But. Acid
- Accompanied with gastric disorder Uranium nit.
- Accompanied with glycosuria; true Phos. acid
- Accompanied by heat; flushes of, menopause; during – Bor. Acid
- Accompanied by hypertension Secale cor
- Accompanied by hyperthyroidism Kali iod
- Accompanied by leucorrhoea –Abroma aug
- Accompanied by paralysis Cur.
- Accompanied by Psoriasis Mang. Acet.
- Accompanied by raw food constant desire for – Tarant.
- Accompanied by respiration Asthmatic Nat. sulph
- Accompanied by thirst Helonias
- Accompanied by urination frequent and copious Vince.
- Accompanied by urine; constant urging of Nat.phos
- Accompanied by abdomen; tympanitic distention of –Uran.nit
- Accompanied by ankles swelling of Argent.met
- Accompanied by feet; numbness of-Helonias
- Accompanied by parotid gland; swelling of left- Conium mac
- Accompanied by pituitary gland; complaints of Flor.p
- Accompanied by tongue; cracked and dry Bor.ac
- Accompanied by bright red discoloration of tongue – Nat.s
- Accompanied by vagina; coldness of Bor.ac
- Bronze diabetes adren
- Incipient staph
- Inflammation of the nervous system; after Lycps.v

- Male genetalia, sexual desire diminished diabetes in – Cupr.
- Eye inflammation retina diabetic Sec.
- Chest pthisis pulmonalis accompanied by, diabetes phos.
- Kidneys complaint of kidneys accompanied by, diabetes – saroth.
- Generals- neurological complaintsaccompanied by- diabetes – Helonias

# Important multi remedy rubrics for Diabetes mellitus from Synthesis Repertory.

### Generals - Diabetes mellitus-

- Accompanied by Appetite ravenous

   graph., iod., kali-p., lac-ac, rat., sec., uran-n.
- Accompanied by Arteriosclerosis aur., chlorpr., plb., syzyg.
- Accompanied by Boils Anthrac., Anthraco., arn., ars., cephd-i., chlorpr., graph., ins., iod., led., nat-p., ph-ac.
- Accompanied by Dropsy acet-ac., kaliact.
- Accompanied by Gangrene Ars., con., cup-ars., Kreos., Lach., Merc., Sec., Solid.
- Accompanied by ulcers sec., syzyg.
- Accompanied by skin; itching of the Con., Graph., Sulph-ac.
- Accompanied by spleen, enlarged Chin., eup-p.
- Accompanied by urinary tract, inflammation of – canth., helon., rhus-a.
- Generals- diabetes mellitus nervous origin ars., aur-m., calc., ign., ph-ac., stry-ar.
- Male genetalia/sex- erections wanting, diabetes with – acon., cann-s., coca., con., cupr., eup-p., Helon., Kali-c., Mosch., Phac., Sulph.
- Mind alcoholism diabetes with med., nux-v.
- Mind memory- weakness of memory diabetes in – Kali-br., lyc., nux-m., nux-v., ph-ac.
- Mind sadness diabetes; during Helon., Nat-s., Opium
- Generals Diabetes mellitus pregnancy agg. during – allox., murx., podo., zinc.
- Generals Diabetes mellitus rapidly developing- cur., morph.
- Generals Diabetes mellitus Pancreas, from complaints of – iris., pancr., phos.





# **Indication:**

As advised by the physician

# **Composition:**

Crataegus oxyacantha	Ø	(12.5%  v/v)
Abroma augusta	Ø	(12.5%  v/v)
Acidum phosphoricum	Ø	(12.5%  v/v)
Syzygium jambolanum	Ø	(12.5%  v/v)
Cephalandra indica	Ø	(12.5%  v/v)
Gymnema sylvestre	Ø	(12.5%  v/v)
Helonias dioica	Ø	(12.5%  v/v)
Excipients		q.s.
Alcohol content		51% v/v

**Dosage:** 8-10 drops in 1/4th cup of water, 2 times a day or as prescribed by the physician.

No Side Effect





Pack sizes available: 30ml

Quality | Safety | Consistency



B.JAIN PHARMACEUTICALS PVT. LTD.

Information for registered medical practitioner only.

# For Total Hair

# CMEO HAIR CARE Drops

# **Indications:**

- Prevents Itching and Scaling
- Thinning of hair & Hair fall
- Unhealthy Condition of scalp.

# **Composition: Internal Preparation**

Each 30 ml contains		
Acidum phosphoricum	6x	(40.0% v/v)
Lycopodium clavatum	3x	(20.0% v/v)
Jaborandi	2x	(10.0 % v/v)
Natrum muriaticum	3x	(10.0 % v/v)
Excipients		q.s.
Alcohol content		(63 % v/v)



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# Repair



# **Composition : External Preparation**

**Dosage for Internal Preparation :** To be taken with water. Adults: 10-12 drops twice daily. Children: 5-7 drops twice daily. **Dosage for External Preparation :** To be mixed and applied with oil.

Adults: 40-45 drops. Children: 20-25 drops.



Pack size available: 30ml

# **Eucalyptus Globulus**



Botanical name : Eucalyptus globulus

**Synonyms**: BlueGum-tree.Fever-tree

Family : Myrtacae

**Distribution**: Australia, Tasmania, Southern

Europe and California.Introduced

in Nilgiris, Annamalai, Palni,

Simla hills and Shillong

# **Preparation** - Tincture from the fresh leaves

**Clinical:** Aneurysm. Asthma. Bladder disorders. Bronchitis. Diarrhea. Dysentery. Dyspepsia. Dysuria. Gonorrhea. Gout. Intermittent fever.Kidney, disease. Quinine cachexia. Rheumatism. Spleen, affection. Strychnine poisoning. Syphilis. Tumor. Typhoid. Urethra, stricture. Urethral caruncle. Worms. 6

# **Indications:**

- + It is an antiseptic, antipyretic, haemostatic, nutrient, stimulant, deodorant, disinfectant; non-poisonous and non-irritating.<sup>1</sup>
- + The remedy is indicated in sub-acute and chronic malarial infectious cases, in which large quantities of quinine have been employed.<sup>3</sup>
- + It is also indicated in typhoid, typho-malarial and other septic fever when there is a dull, congestive headache and a diarrhoea of a thin, watery, offensive character.<sup>3</sup>
- + It is useful in tubercular and hectic fever with profuse, exhaustive sweats, and in asthma of debilitated anaemia subjects with great dyspnoea and palpitation of the heart.<sup>3</sup>
- + It is useful in tubercular and hectic fever with profuse, exhaustive sweats, and in asthma of debilitated anaemia subjects with great dyspnoea and palpitation of the heart.<sup>3</sup>
- + It is beneficial in chronic catarrh of the bladder, in chronic nephritis, granular degeneration of the kidneys, pyonephrosis, and in hydronephrosis.<sup>3</sup>
- Stuffed up sensation; though nose does not stop running.<sup>2</sup>
- + Acute nephritis complicating influenza. Burning and tenesmus; catarrh of bladder; diuresis; urethral caruncle.<sup>4</sup>
- Extremities-Pricking sensation, followed by painful aching.<sup>4</sup>

**Prescribed dose:** Tincture in one to 20 drop doses, and lower potencies.<sup>5</sup>

#### References:

- 1. ANSHUTZ E. P., New Old and Forgotten Remedies
- 2. BHATIA V.R., Influenza and its Homoeopathic Treatment
- 3. BLACKWOOD A. L., A Manual of Materia Medica Therapeutics and Pharmacology
- 4. BOERICKE W., Pocket Manual of Homeopathic Materia Medica
- VARMA P.N and INDU V., Encyclopaedia of Homeopathic Pharmacopoeia
- 6. MURPHY R., Homeopathic Remedy Guide

# PYREXIA EXPLAINED

## FEVER - A SIGN OF NORMAL BODY DEFENSE MECHANISM

Fever or raised body temperature is a common manifestation of a wide range of infections and inflammatorions and is a result of hypothalamic reaction to the injurious effects of pyrogens on the body.

Hypothalamus is the thermoregulatory centre of body and it maintains the temperature within a normal range irrespective of the variations in external environmental temperature under ordinary circumstances. This range is  $36.8^{\circ} + 0.4^{\circ}\text{C}$  (  $98.2^{\circ} + 0.7^{\circ}$  F) which is lowest at around 6 a.m in the morning and the highest at around 4-6 p.m. in the evening.<sup>1</sup>

'Fever' implies an elevated core body temperature > 38.0°C, i.e. above the normal daily variation.<sup>2</sup>

# Pathogenesis of fever

**Pyrogens** (Greak pyro means "fire") are the substances, potentially injurious to our body resulting in fever or elevated body temperature. Mostly they are **exogenous**, being derived from sources external to the body such as microbial products, microbial toxins, or whole microorganisms (including viruses).<sup>1</sup>

Pyrogenic cytokines are **endogenous** variety of pyrogens capable of producing fever. These include include IL-1, IL-6, tumor necrosis factor (TNF), and ciliary neurotropic factor. Nonetheless fever can be non infectious in origin as well, like in case of inflammatory processes, tissue necrosis, tumors and fever triggered by the formation of antigen – antibody complexes. Both exogenous and endogenous pyrogens elevate prostaglandins in the circulating blood which reset the hypothalamic temperature at a higher level. This triggers a series of vasoconstriction, chills and rigor till the temperature reaches the elevated set point resulting in fever.

Hyperthermia or heat stroke needs to be differentiated from fever as it is uncontrolled elevation of body temperature which exceeds body's ability to lose heat. Hyperthermia is not triggered by pyrogens and the hypothalamic thermo-regulatory setting remains unaltered. Excessive heat exposure and overworking or exercising in hot temperatures can produce heat faster than the body's ability to lose it and results in Hyperthermia.

Broadly fevers can be categorized as follows<sup>5</sup>:

- Infectious Common infections leading to fever are mostly viral, affecting the upper respiratory tract or the Gastro-intestinal tract such as influenza, dengue, swine flu, hepatitis, chicken pox, measles etc. Bacterial tonsillitis, pharyngitis, acute otitis media, tuberculosis, lung abscess, pneumonia, meningitis are bacterial infections causing fever.
- Neoplastic- Pel-ebstein is typical pattern of fever associated with Hodgekin's Lymphoma. The fever cyclically increases and decreases over an average period of one or two weeks.
- Inflammatory Inflammatory bowel disease, collitis, pelvic inflammatory disease and pyelonephritis are some inflammatory conditions responsible for pyrexia.
- Pyrexia of Unknown Origin(PUO)-Persistently raised temperature beyond 38°C for more than 3 weeks, without diagnosis, despite initial investigation during 3 days of inpatient care or after more than two outpatient visits, is termed as Pyrexia Of Unknown Origin (PUO). They are mostly HIV related, immune deficient or nosocomial cases.<sup>2</sup>
- Fever in the injection drug user-Drug abusers and addicts are prone to microbial



infections entering directly into the circulation through non-sterile, shared injections that are used for drugging.<sup>2</sup>

- Fever in immune-compromised subjects-Persons with congenital immunodeficiency, HIV infection and iatrogenic immune-suppression induced by chemotherapy and transplantation are subject to fevers due to infectious and non-infectious causes such as vasculitis, neoplasms, pneomonitis, lympho-proliferative disease, graft vs host disease etc.<sup>2</sup>
- Neutropenic Fever-Fever associated with a neutrophil count less than 0.5X109/L is called neutropenic fever with single axillary temperature > 38.5°C or three recordings > 38°C over a period of 12 hours. Such patients are prone to bacterial and fungal infections.<sup>2</sup>

# Clinical management of fever:

As such fever does not need any specific treatment and it mostly resolves on its own under normal care but to allay the associated discomfort, temperature can be brought down with the help of tepid sponging and conventional medicines like paracetamol.

Following investigations can also be done to avoid any risk factor:

CBC with TLC, DLC and eosinophil count, Blood urea, electrolytes and liver function test, Blood glucose, ESR, CRP, Chest X-Ray, ECG, Urinanalysis, Blood culture, Throat swab for culture, Wound culture, sputum culture or stool culture as indicated by history and examination.<sup>2</sup>

A physician should always rule out any sign of serious consequences in a febrile case as follows:

- Altered consciousness, confusion, delirium, seizures, Headache, intense photophobia and stiff neck should be ruled out. Petechial rash, haemorrhages from natural orifices, tachycardia and dyspnoea should be paid immediate medical attention.
- Pulse and Blood pressure should be monitored to keep a check on hypotension.
- Temperature>  $40^{\circ}$  C or  $< 35^{\circ}$  C should be watched out for.

Homoeopathic approach to febrile cases depends upon uncommon, peculiar , striking and characteristic symptoms of the patient which help in the selection of a single most similar remedy. In emergencies which run a very short course, it is often challenging for the homoeopathic physician to reach the simillimum in least time. Homoeopathic combinations with proven efficacy act as the most trusted aid of doctor in such cases, like **Omeo D-FvR**. It is a combination of homoeopathic medicines which are the best natural febrifuges and help in safely and effectively relieving the sufferings of a febrile case.

### Reference:

- 1. KASPER et al. Harrison's Principles of Internal Medicine; 19th Edition
- 2. NICKI R.COLLEDGE et al. Davidson's Principles and Practice of Medicine; 21st Edition
- 3. Harsh mohan, Textbook of Pathology; 6th Edition
- Sunit Singhi et al. The Indian Society of Critical Care Medicine Tropical Fever Group,"Tropical Fevers: Management Guidelines"; Indian J Crit Care Med. 2014 Feb; 18(2): 62–69. doi: 10.4103/0972-5229.126074; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3943129/; accessed on 27-6-19
- 5. Larry M.Bush, Fever, Merck Manual, https://www.merckmanuals.com/professional/infectious-diseases/biology-of-infectious-disease/fever; accessed on 28-6-19

Compiled by **Dr. Vasundhara**Editor
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Supplementary Homoeopathic Therapy for Dengue and Chikungunya Fever

# **INDICATIONS:**

Helpful for symptoms due to viral fever.

# COMPOSITION

Each 5ml contains:

Tinospora Cordifolia	Ø	0.1ml
Carica Papaya	Ø	0.1ml
Ocimum Sanctum	Ø	0.05ml
Azadirachta Indica	Ø	0.05ml
Rhus Toxicodendron	3x	0.05ml
Eupatorium perfoliatum	3x	0.05ml
Gelsemium sempevirens	3X	0.05ml
Belladona	3X	0.05ml

In syrup base

Excipients q.s. to make 5ml

**Dosage:** 2 teaspoons, three to four times a day or as prescribed by the physicians.



Pack sizes available: 60ml | 100ml | 200ml | 500ml

In severe cases homoeopathic medicines are to be used as an adjuvant to standard care



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Owned, Printed and Published by Mr. Kuldeep Jain 1922, Street No. 10, Chuna Mandi, Post Box 5775, Paharganj, New Delhi-110055 Ph.: 91-11-4567 1000 Fax: 91-11-4567 1010, Email: info@bjain.com at J. J. Offset Printers 522, F.I.E., Patpar Ganj, Delhi-110 092