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(REVIEW ARTICLE)

New methods and equations of separate fever from disease and its symptoms, signs, signals and actions

K. M. Yacob *

Marma Health Centre, kalyani Towers, DeshabhimaniJn, P.O. Kaloor, Ernakulam (Dt), Kerala, India.

Abstract

A fever patient has disease and fever at the same time. From this, there is no system of separate the fever from the disease and its symptoms, signs, signals, and actions.

Method of distinguishing hyperthermia, fever, and disease.

Hyperthermia can be divided into two types.

- Destructive hyperthermia.
- Protective hyperthermia.

The immune system produces partial or total heat in the body to increase blood flow in patients with reduced blood flow due to inflammation. This is not part of the disease. It is part of the immune system. Here the high temperature created by the immune system (thermogenesis) called hyperthermia is a misnomer. Protective hyperthermia is more aptly called life-saving hyperthermia.

Currently, there are no tools or systems that distinguish between destructive hyperthermia and protective hyperthermia.

As modern science has no basic knowledge about fever[1], physicians say that fever is a symptom of many diseases, a cause of multi-disease, and a protective shield. If fever is a symptom, a cause of the disease, or a protective shield, parts of the definition and diagnosis of fever should be included. Without this, a unified diagnosis of fever cannot be developed. The result is a temperature-based diagnosis and temperature-reducing treatment that treats fever as hyperthermia without knowing what the fever is for, leading to increased morbidity and mortality in patients.

New methods and equations of separate fever from disease and its symptoms, signs, signals, and actions can help to define, diagnose and cure the disease faster and preserve health. It is needed for study purposes and research

Keywords: Fever; Disease; Protective hyperthermia; Symptoms; Signs

1 Introduction

A fever patient has disease and fever at the same time. From this, there is no system of separate the fever from the disease and its symptoms, signs, signals, and actions. Most people do not even think of a system of distinguishing between fever and disease or their signs, symptoms, signals, and actions, or the formulas by which they are found,

*Corresponding author: K. M. Yacob

because they blindly believe that fever is a symptom of the disease. Most patients who go to the hospital for treatment of fever do not know what fever is.

Medicines and treatments are given to reduce the temperature of the fever. The cause of fever and the cause of the disease is not one but two.

Those who do not know this mistake are that if the temperature of the fever decreases, the disease is gone. Even if the fever is gone, the disease remains in the patient's body. Most of the time the disease is not diagnosed, detected, or known when the fever is present. Here is the relevance of distinguishing between fever and disease, their signs and symptoms, signals, actions, and their formulas. Today, fever is considered a symptom of disease without knowing the practical method of symptom definition.

According to the symptom definition, fever is not a symptom. None of the diseases require fever as its symptoms. Fever has Symptoms, signs, signals, and actions.

1.1 Method of distinguishing hyperthermia, fever, disease, and hypothermia

Hyperthermia can be divided into two types.

- Destructive hyperthermia (DH).
- Protective hyperthermia (PH).

In another way, hyperthermia can be divided into pre-morbid hyperthermia and post-morbid hyperthermia. Pre-morbid hyperthermia contains only things that destroy the body. But in post-morbid hyperthermia, there is both saving and destroying the body. So this division is not scientific.

Many types of drugs, poisons, and narcotics enter the body and these drugs and the immune system can cause hyperthermia. Fever is a post-morbid hyperthermia.

1.1.1 Destructive hyperthermia (DH)

Destructive hyperthermia is caused by direct contact with heat in the body due to external causes such as fire, sunlight, acid, and various drugs and poisons. In this, the body hates the rise in temperature.

If the intensity of fire, sunlight, acid etc is less, there is no significant disease due to destructive hyperthermia. In severe cases, various diseases are caused due to heat and even death. It is not necessary to distinguish hyperthermia from a diseased state in this category.

1.1.2 Protective hyperthermia(PH)

The immune system produces partial or total heat in the body to increase blood flow in patients with reduced blood flow due to inflammation. This is not part of the disease. It is part of the immune system. Here the high temperature created by the immune system (thermogenesis) called hyperthermia is a misnomer. Protective hyperthermia is more aptly called life-saving hyperthermia.

There is basically no difference between the different types of heat. There is a difference in who made this heat, for what purpose, and how. When the immune system raises the temperature to save the body or organ, it prepares other favorable mechanisms and conditions.

Protective Hyperthermia is created by the immune system in fever and some other diseases. In this, the body likes the increase in temperature. Those who do not know life-saving hyperthermia, consider hyperthermia to be destructive to the body. The result is increased morbidity and mortality.

Currently, there are no tools or systems that distinguish between destructive hyperthermia and protective hyperthermia.

To distinguish between protective hyperthermia and destructive hyperthermia, one must first understand objects to create, diagnose, and eliminate fever, hyperthermia, protected hyperthermia, and hypothermia. And the difference between fever, disease, protective hyperthermia, destructive hyperthermia, and hypothermia. After that one must know what are their symptoms, signs, signals, and actions and the differences between them. After this, formulas should be

prepared to distinguish the differences between them. Such a scientific method has not been seen in any medical book to date.

Symptoms, signs, signals, and actions of fever are not the symptoms, signs, signals, and actions seen in a patient with a fever. These are the symptoms, signs, signals, and actions of both fever and disease.

These are the symptoms, signs, signals, and actions of saving and destroying the body. In fever, these are the symptoms, signs, signals, and actions of saving the body and increasing blood flow. In disease, these are the symptoms, signs, signals, and actions of reduced blood flow and damage. So it is very important to distinguish the symptoms, signs, signals, and actions of fever from the disease and help and protect it.

2 Objects to create, diagnose, and eliminate fever, hyperthermia, protected hyperthermia, and hypothermia

Table 1 Comparing objects to create, diagnose, and eliminate fever, hyperthermia, protected hyperthermia, and hypothermia

a. Materials necessary to create a fever.	b. Materials necessary to create hyperthermia.	c. Materials necessary to create protected hyperthermia.	d. Materials necessary to create hypothermia.
1.Uncontrollable cold, Materials that decrease body temperature and blood flow. 2.Functions of the immune system. 3. Activities that increase body hydration.	1.Uncontrolled temperature. 2.Heat creating materials, 3. Dehydration activities	1.Uncontrollable cold. 2.Materials that decrease body temperature and blood flow. 3.Functions of the immune system. Activities that increase body hydration.	1.Uncontrollable cold. 2.Materials that decrease body temperature and blood flow.
e. Materials necessary to diagnose a fever.	**f. Materials necessary to diagnose hyperthermia.**	**g. Materials necessary to diagnose protected hyperthermia.**	**h. Materials necessary to diagnose hypothermia.**
Tests to see if there are things and materials that only happen during fever.	Tests to see if there are things and materials that only happen during hyperthermia.	Tests to see if there are things and materials that only happen during protected hyperthermia.	Tests to see if there are things and materials that only happen during hypothermia.
i. Materials necessary to eliminate a fever	**j. Materials necessary to eliminate hyperthermia.**	**k. Materials necessary to eliminate protected hyperthermia.**	**l. Materials necessary to eliminate a hypothermia.**
Warming substances increase blood flow and reduce fever caused by inflammation.	Cooling and hydrating agents reduce the temperature that causes hyperthermia.	Warming substances increase blood flow, decrease inflammation, and reduce protected hyperthermia caused by inflammation.	Warming substances increase blood flow and temperature.

3 Method of distinguishing hyperthermia, hypothermia, fever and disease

3.1 Method of separates disease (DAPH) and protective hyperthermia (PH) in a protective hyperthermic state (PHS). So we can prepare an equation

Table 2 Formula table that separates disease (DAPH) and protective hyperthermia (PH) from protective hyperthermic state (PHS)

Protective hyperthermia (PH) = Protective hyperthermic state (PHS) - Disease absence of Protective hyperthermia (DAPH). PH = PHS - DAPH.
Disease absence of Protective hyperthermia (DAPH) =Protective hyperthermic state (PHS)-Protective hyperthermia (PH). DAPH = PHS - PH.
Protective hyperthermic state (PHS) = Disease absence of Protective hyperthermia (DAPH) + Protective hyperthermia (PH). PHS = DAPH + PH.

Table 3 Formula table distinguishing post-morbid hypothermia, and disease

Post-morbid hypothermia (PMLT) = Hypothermic State (PMLTS)- Disease in the absence of hypothermia (DALT). PMLT=PMLTS- DALT.
Disease in the absence of hypothermia (DALT)= Hypothermic State (PMLTS)-Post-morbid hypothermia (PMLT). DALT =PMLTS-PMLT.
Hypothermic State (PMLTS) = Disease in the absence of hypothermia (DALT) + Post-morbid hypothermia (PMLT). PMLTS= DALT+PMLT.

3.2 Method of separates disease (DAF) and fever(F) in a feverish state (FS)

When common people say fever, it also includes disease. When we say the feverish state, it includes symptoms, signs, signals, and actions of the disease and fever as well as the disease and fever.

Fever (F) is separated by subtracting the disease absence of fever(DAF) from the feverish state (FS). So we can formulate a formula by which we can separate the fever and the diseased state from the feverish state in which the disease is involved. Just like this formula and method of separating disease from protective hyperthermic state can be prepared. So we can prepare an equation:-

Table 4 Formulas distinguishing fever, and disease

Fever (F) = Feverish State(FS)- Disease in the absence of fever (DAF). F=FS- DAF.
Disease in the absence of fever (DAF) = Feverish State(FS)- Fever (F). DAF =FS-F.
Feverish State(FS)= Disease in the absence of fever (DAF)+ Fever (F). FS= DAF +F.

4 Method of separates symptoms, signs, signals, and actions of disease, fever, and hyperthermia

A fever state means symptoms, signs, signals, and actions of both disease and fever are included. A hyperthermic state means symptoms, signs, signals, and actions of both disease and hyperthermia are included.

We can separate symptoms, signs, signals, and actions of fever and hyperthermia and disease. Signs, symptoms, and signals of increasing temperature may also be present at temperatures above 24°C.

Table 5 A table of distinguishing the symptoms of fever, destructive hyperthermia, protective hyperthermia, and hypothermia

Symptoms of fever	Symptoms of destructive hyperthermia	Symptoms of protective hyperthermia.	Symptoms of hypothermia.
Body pain, bitter taste, fatigue to mind and body, reduced appetite, reduced motion and indigestion, an aversion towards cold substances, internal and external discomfort, etc.,	Likeness towards cold items like drinking cold water, feeling discomfort while using a blanket, feeling hot, etc	Likeness towards hot items like drinking hot water, feeling comfort while using a blanket, feeling cold, an aversion towards cold substances, etc.	Likeness towards hot items, fatigue to mind and body, reduced appetite, an aversion towards cold substances, feeling cold, etc.,

4.1 Tables of formulas and distinguishing the symptoms of a disease, fever, protective hyperthermia, and hypothermia

Symptoms in a feverish state, both symptoms of the disease and symptoms of the fever are included. If we deduct symptom of the disease from total symptoms in a feverish state, we will get symptoms of the fever.

Fever-only symptoms(Fsy) can be obtained by subtracting all disease-only symptoms (DAFsy) and all decreasing blood-flow-only symptoms from the feverish state symptoms (FSsy).

So we can prepare an equation

Table 6 Formulas for distinguishing symptoms of the disease and symptoms of fever from symptoms in a feverish State

Fever-only symptoms (Fsy) = Feverish state symptoms (FSsy) - Disease-only symptoms (DAFsy). Fsy = FSsy – DAFsy.
Disease-only symptoms (DAFsy)= Feverish state symptoms (FSsy) - Fever-only symptoms (Fsy). DAFsy = FSsy- Fsy.
Feverish state symptoms (FSsy)= Disease-only symptoms (DAFsy)+ Fever-only symptoms (Fsy) . FSsy= DAFsy + Fsy.

Symptoms of fever include symptoms of increased blood flow to major organs, decreased blood flow to non-vital organs, and skin contraction despite the increased temperature. Isolated fever symptoms include symptoms of all activities that occur only during fever. It is more difficult to distinguish these precisely.

Fever never shows symptoms of rising temperature.

4.1.1 Symptoms in a protective hyperthermic state, both symptoms of the disease and the symptoms of the protective hyperthermia are included. If we deduct symptoms of the disease from the total symptoms in a protective hyperthermic state, we will get symptoms of the protective hyperthermia.So we can prepare an equation

Table 7 Formulas for distinguishing symptoms of the protective hyperthermia and symptoms of disease from symptoms in a protective hyperthermic state

Symptoms of protective hyperthermia (PHsy) = Symptoms in a protective hyperthermic State (PHSsy)- Symptoms of disease in the absence of protective hyperthermia (PHADsy). PHsy= PHSsy-PHADsy.
Symptoms of disease in the absence of protective hyperthermia (PHADsy) = Symptoms in a protective hyperthermic State (PHSsy)- Symptoms of protective hyperthermia (PHsy). PHADsy= PHSsy-PHsy.

> Symptoms in a protective hyperthermic State (PHSsy) = Symptoms of disease in the absence of protective hyperthermia (PHADsy) + Symptoms of protective hyperthermia (PHsy).
>
> PHSsy=PHADsy+PHsy.

Like Symptom we can separate signs, signals, and actions of fever, disease, protective hyperthermia, and destructive hyperthermia.

Table 8 Formulas and ways of knowing and distinguishing the signs of a disease, fever, protective hyperthermia, destructive hyperthermia, and hypothermia

Signs of fever	Signs of destructive hyperthermia	Signs of protective hyperthermia.	Signs of hypothermia	Signs of disease
Prostaglandins (PGE2) are increased, TNF alpha increases, the firing rate of Warm sensitive neurons decreases, the firing rate of Cold sensitive neurons increases, the blood vessels under the skin contract, increases blood flow to vital organs, decreases blood flow to less important organs, and our immune system raises the temperature.	The firing rate of Warm sensitive neurons increases, the firing rate of Cold sensitive neurons decreases, the blood vessels under the skin expand, increases blood flow to all organs, and makes arrangements to decrease the temperature.	The firing rate of Warm sensitive neurons decreases, the firing rate of Cold sensitive neurons increases, the blood vessels under the skin contract, increases blood flow to vital organs, decreases blood flow to less important organs, and our immune system raises the temperature.	The firing rate of Warm sensitive neurons decreases, the firing rate of Cold sensitive neurons increases, the blood vessels under the skin contract, increases blood flow to vital organs, decreases blood flow to less important organs,	According to disease

4.1.2 Signs in a feverish state, both signs of the disease and signs of the fever are included. If we deduct signs of the disease from total signs in a feverish state, we will get signs of the fever.

Table 9 Formulas for distinguishing signs of the disease and signs of fever from signs in a feverish State

> Fever-only signs (Fsn) = Feverish state signs (FSsn) - Disease-only signs (DAFsn).
>
> Fsn = FSsn – DAFsn.
>
> ---
>
> Disease-only signs (DAFsn)= Feverish state signs (FSsn) - Fever-only signs (Fsn).
>
> DAFsn = FSsn- Fsn.
>
> ---
>
> Feverish state signs (FSsn)= Disease-only signs (DAFsn)+ Fever-only signs (Fsn).
>
> FSsn= DAFsn + Fsn.

4.1.3 Signs in a protective hyperthermic state, both Signs of the disease and signs of the protective hyperthermia are included. If we deduct signs of the disease from total signs of the protective hyperthermic state, we will get signs of the protective hyperthermia.

Signs in a protective hyperthermic state (PHSsn) both signs of the disease(PHADsn) and signs of the protective hyperthermia are included(PHsn).

Table 10 Formulas for distinguishing signs of the disease and signs of protective hyperthermia from signs in a protective hyperthermic state

Signs of protective hyperthermia (PHsn) = Signs in a protective hyperthermic state (PHSsn)- Signs of disease in the absence of protective hyperthermia (PHADsn).   PHsn= PHSsn -PHADsn.
Signs of disease in the absence of protective hyperthermia (PHADsn) = Signs in a protective hyperthermic state (PHSsn)- Signs of protective hyperthermia (PHsn).   PHADsn= PHSsn -PHsn.
Signs in a protective hyperthermic state (PHSsn) = Signs of disease in the absence of protective hyperthermia (PHADsn) + Signs of protective hyperthermia (PHsn).   PHSsn =PHADsn+PHsn.

4.1.4   Signals in a feverish state, both signals of disease and signals of fever are included. If we deduct signals of disease from the total signals in a feverish state, we will get signals of fever.

Table 11 Formulas and ways of knowing and distinguishing the signals of a disease, fever, hyperthermia, and hypothermia

Signals of fever	Signals of destructive hyperthermia	Signals of protective hyperthermia	Signals of hypothermia	Signals of disease
Shivering, increased sleep, increased inflammation, the immune system raises the temperature to below 42 ^{o}C only in heat-loving situations	Increased Sweating, Decreased sleep, Decreased inflammation, uncontrolled increased temperature.	Shivering, the immune system raises the temperature to below 42°C only in heat-loving situations	Shivering, increased sleep, increased inflammation,	According to disease

Table 12 Formulas for distinguishing signals of the disease and signals of fever from signals in a feverish state

Fever-only signals (Fsi) = Feverish state signals (FSsi) - Disease-only signals (DAFsi).   Fsi = FSsi – DAFsi.
Disease-only signals (DAFsi)= Feverish state signals (FSsi) - Fever-only signals (Fsi).   DAFsi = FSsi- Fsi.
Feverish state signals (FSsi)= Disease-only signals (DAFsi)+ Fever-only signals (Fsi).   FSsi= DAFsi + Fsi.

4.1.5   Signals in protective hyperthermic state, both signals of disease and signals of protective hyperthermia are included. If we deduct the signals of disease from the total signals in a protective hyperthermia state, we will get signals of protective hyperthermia

Table 13 Formulas for distinguishing signals of the disease and signals of protective hyperthermia from signals in a protective hyperthermic state

Signals of hyperthermia (PHsi) = Signals in a protective hyperthermic state (PHSsi)- Signals of disease in the absence of protective hyperthermia (PHADsi). PHsi=PHSsi -PHADsi.
Signals of disease in the absence of protective hyperthermia (PHADsi) = Signals in a protective hyperthermic state (PHSsi)- Signals of protective hyperthermia (PHsi). PHADsi=PHSsi -PHsi.
Signals in a protective hyperthermic state (PHSsi) = Signals of disease in the absence of protective hyperthermia (PHADsi) + Signals of protective hyperthermia (PHsi). PHSsi=PHADsi+PHsi.

4.1.6   Actions in a feverish state (FSAn), both actions of the disease and actions of the fever are included. So we can prepare an equation

Table 14 Formulas for distinguishing actions of the disease and actions of fever from actions in a feverish state.

Fever-only actions (FAn) = Feverish state actions (FSAn) - Disease-only actions(DAFAn). FAn = FSAn – DAFAn.
Disease-only actions(DAFAn)= Feverish state actions (FSAn) - Fever-only actions (FAn). DAFAn = FSAn- FAn.
Feverish state actions (FSAn)= Disease-only actions(DAFAn)+ Fever-only actions (FAn). FSAn= DAFAn + FAn.

4.1.7   Actions in a protective hyperthermic state, both actions of the disease and actions of the protective hyperthermia are included. So we can prepare an equation:-

Table 15 Formulas for distinguishing actions of the disease and actions of protective hyperthermia   from actions in a protective hyperthermic state

Actions of protective hyperthermia (PHAn) = Actions in a protective hyperthermic state (PHSAn)- Actions ofdisease in the absence of protective hyperthermia (DAPHAn). PHAn= PHSAn - DAPHAn.
Actions of disease in the absence of protective hyperthermia (DAPHAn) = Actions in a protective hyperthermic state (PHSAn)- Actions of protective hyperthermia (PHAn). DAPHAn = PHSAn -PHAn.
Actions in a protective hyperthermic state (PHSAn) = Actions of disease in the absence of protective hyperthermia (DAPHAn) + Actions of protective hyperthermia (PHAn). PHSAn = DAPHAn +PHAn.

Tables and formulas can be prepared to distinguish between the symptoms, signs, signals, and messages of decreased blood flow, increased blood flow, and increased blood flow by the immune system.

After analyzing and evaluating the above equations and tables and co-relate them, it becomes clear what is the right way of methods and equations to separate fever from disease and its symptoms, signs, signals, and actions.

The reasons for not being able to distinguish between symptoms, signs, signals, and actions of fever and hyperthermia, are the lack of understanding of what purpose of fever heat, not knowing the practical method of symptom definition, and without obeying any scientific law that exists today, the diagnosis and treatment of fever have been made by combining the fever created by our immune system as a protective shield with the disease called hyperthermia caused by external causes.

5.Importance of the findings of the New methods and equations of separate fever from disease and its symptoms, signs, signals, and actions.

New methods and equations of separate fever from disease and its symptoms, signs, signals, and actions are to scientifically evaluate, distinguish, summarize, and easily understand fever, disease, and hyperthermia individually.

It can help to define, diagnose and cure the disease faster and preserve health. And to accurately distinguish, evaluate and summarize each of these, formulas, tables, and methods are needed for study purposes and research.

5 Conclusion

Fever, disease, and hyperthermia definition, diagnosis, and treatment should be revised according to the new methods and equations of separate fever from disease and its symptoms, signs, signals, and actions.

I have compiled a list of formulas that can distinguish between the symptoms, signs, signals, and actions of fever and diseases and a list of 25 formulas that distinguish between fever and disease. It has been published in the book "Fever - new definition, diagnosis and treatment based on true science" and "The purpose of the temperature of fever".

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest.

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