

INTRODUCTION

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Fever is perhaps the most ancient and widely known hallmark of disease. For much of history, the word "fever" has been used almost synonymously with disease itself as various epidemics have ravaged the civilizations of East and West alike. (Atkins and Bodel, 1972).

Fever in an infant during the first three months of life may be an indication of a potentially serious infection such as sepsis or meningitis. Diagnosis of such a life threatening condition may be difficult at this age and hence becomes an important consideration when evaluating a febrile infant. (McCarthy and Dolan, 1976).

Fever as a sign of bacterial disease in a full-term newborn is both highly sensitive and specific. The height of the fever may also be useful since the incidence of bacterial disease was significantly higher in the newborn infant who had temperature more than 39°C. In spite of high grade fever was a significant predictor of bacterial disease, low grade fever did not rule out serious infections. (Voora et al., 1982).

The age of onset of temperature variations varies from 24 hours to over 14 days after birth. Stress of birth was the condition most commonly associated with pyrexia appearing on the second or third day of life, and infection was the most common association with fever

first developing during or after the first half of the second week of life.

Dehydration was the most common cause of pyrexia developed at any time in the first fortnight and characteristically was of short duration, responding rapidly to administration of increased fluids.

Less common factors are included; retained blood, congenital anomalies, prematurity and jaundice. (Craig, 1963).

Ancient scholars such as Hippocrates were somehow aware that the elevation in body temperature during disease a response of the body to infection, rather than a passive by-product of disease. (Kluger, 1979)

Further evidence that a fever was a raised thermoregulatory "set-point" or thermostat setting has come from investigations into the evolution of the febrile response. Within the past decade there has accumulated considerable data that fever is a response to infection, not only in mammals, but also in birds, reptiles, amphibians, and fishes. (Kluger, 1980)

The development of a fever appears to be triggered by many foreign substances, regardless of whether these activators, or inducers, of fever are bacteria, viruses, fungi, etc., they all seem to result in the production of small molecular weight protein of about 1,500,000 daltons -endogenous pyrogen (EP). EP is produced and released by many different types of immunologically active phagocytic cells such as neutrophils, monocytes, and Kupffer cells. In bacterial

infections, it appears that the release of EP is triggered by the contact of these phagocytic cells with the bacterial cells. (Dinarelli and Wolff, 1978).

In the case of tumor-induced fevers and hypersensitivity-induced fevers, it appears that EP is released in response to the production and release of a lymphokine from sensitized lymphocytes.

In the newborn infants these responses are not effectively working as well as the poor thermoregulatory ability particularly in immature ones. So, a neonate in response to infection often develops moderate fevers or remains afebrile. (Kluger, 1980)