



Study of Fever Presentation in DAE Hospital

Author

Dr Sridevi Sitaraman

MD (Medicine) Physician DAEH

Department of Medicine

Introduction

Background-Although earliest fever curves was created in 10th century by **Akhawayni**, fever was reported by **Beeson** (1961) as the presence of an endogenous pyrogen in rabbit PMNL. Today the granulocyte factor is the central role in pathogenesis of fever. Normal body temp is 98.6*f and fever is a complex physiological response involving the innate immune system and any temperature beyond the normal. **Hippocrates and Kos** (377BCE) attributed to pyretos and therme (fever and heat) which arose from 4 elements-blood, phlegm, black bile and yellow bile. **Fahrenheit and Celsius** were pioneers in development of thermometer and axillary temperatures were first used for fever Then **Mackowiak and colleagues** described an oral thermometer and they gave 98.6*f as normal and 99.9*f as upper limit of normal. Thermoregulatory behaviours (brown adipose tissue thermogenesis, shivering, sweating, vasoconstriction and vasodilation) are the control loops in response to core and skin temperature.

Of the illnesses, infection, neoplasia, inflammatory, miscellaneous and undiagnosed

illness form the main group. In India, infections constitute 16-55% of cases. Now in industrialized countries, undiagnosed cases have risen. Among the infections, UTI, TB, viral and protozoal abcess, endocarditis are frequently diagnosed out of which viral infections predominate. In older patients infections are less frequent cause of fever which is opposite to pediatric population. Travel history and vaccination history is important as in COVID era. Lab findings were consistant with clinical presentation in 90% of cases .Mortality out of fever was very negligible only in older patients (1-3%).

Target population

Around 100 people admitted with fever in wards in age group of 18-80 yrs

Aim of study

To study the various presentations of fever in different age groups and to know the prevelance of different infections

Study methodology and selection criteria:

Retrospective observational study of symptom analysis of around 100 people with fever, who

presented at DAE hospital during the period Mar 2022 – Feb 2023 have been done.

Exclusion criteria-Those pts with fever due to neoplasms and autoimmune causes were not included.

Table 1- no of fever cases in male and female

Fever cases	Male	female
110	63	42

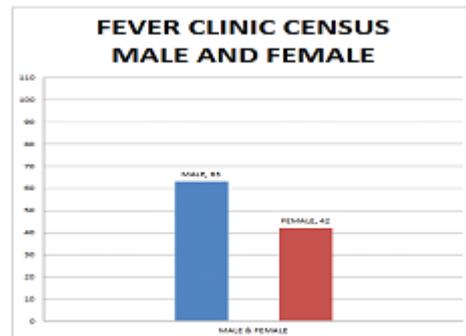
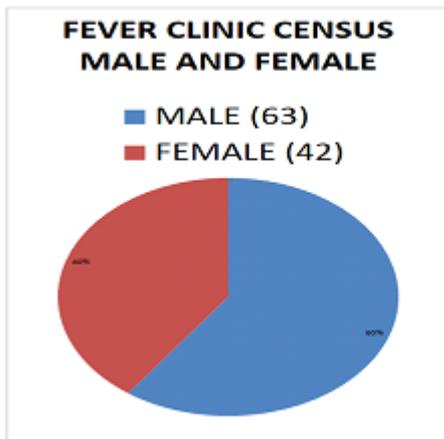


Table 2- no of fever cases according to age

Fever cases	Above 60 yrs	Below 60 yrs
110	44	66

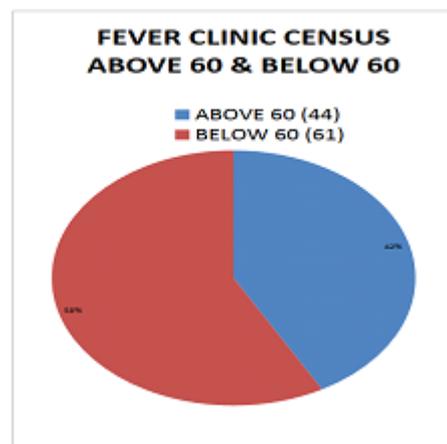
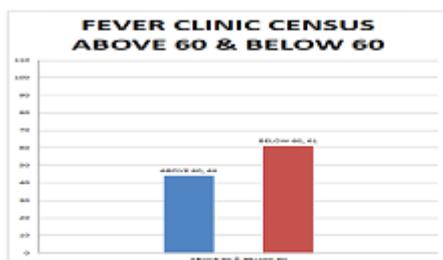


Table 3- no of cases of COVID

Fever cases	COVID positive	COVID negative
110	11	99

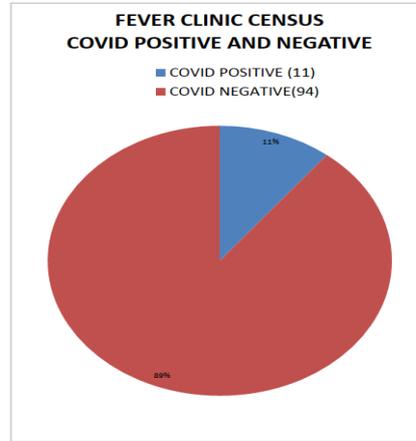
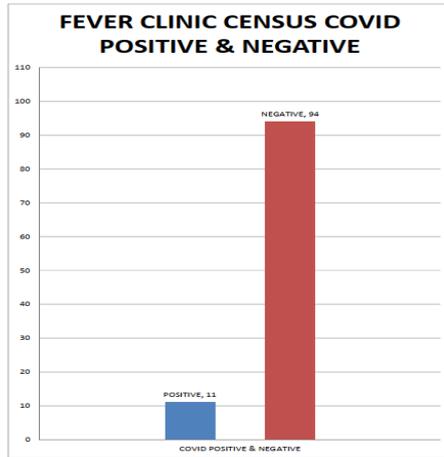
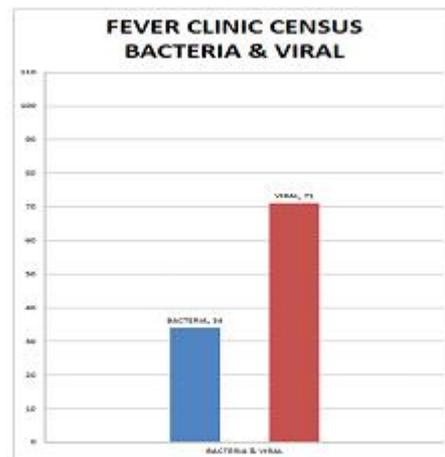
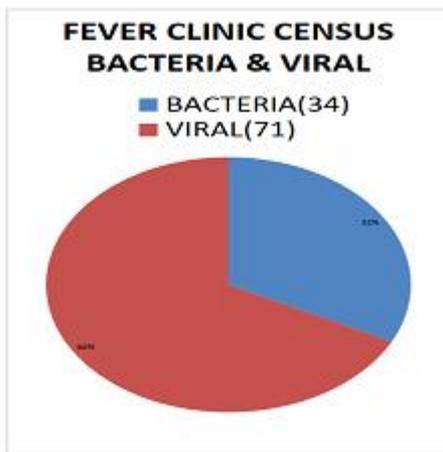


Table 4- no of fever cases as per the causative agent

Fever cases	Bacterial cause	Viral
110	34	76



Results and inferences

In our study, 11 of them were positive for COVID and 76 were found to be viral and rest were bacterial or secondary bacterial, protozoal infections. Of the individuals studied 42 were females and 44 were beyond the age of 60 yrs and 15 were with comorbidities. So we infer that viral

associated infections predominate among those studied even after peak COVID time.

Comparison with national data and societal implication- As with national data infections (16%) are the common causes of which viral infections are predominant (aafp). In our hospital apart from COVID .although pediatric age is

affected more with fever, younger population are more prone to infections as compared to >60 yrs old which is compliant with national data (ncbi). So it becomes our responsibility to control infections of any kind be it COVID or non-COVID with hygienic measures, vaccination and protective measures.

Conclusion

In comparison with national data fever cases predominate in younger individuals <60 yrs and more predominant infections mostly viral even during waning period of COVID. In the presence of comorbidities it becomes still pivotal to control infections even otherwise. So all nation wide vaccination campaigns and prevention programmes are the solution. In our hospital we encourage pneumovax, influenza vaccines apart from COVID and routine vaccination programmes. So by conducting the study we can imply it in our whole population and make fever census less than other cases

References and acknowledgements-

New England journal of medicine article
American association of family physicians data
National centre for biotechnology information
National institute of health data