ISSN: 0976-3031

Available Online at http://www.recentscientific.com

CODEN: IJRSFP (USA)

International Journal of Recent Scientific Research
Vol. 8, Issue, 9, pp. 20080-20082, September, 2017

International Journal of Recent Scientific Research

DOI: 10.24327/IJRSR

Research Article

ANALYTICAL STUDY OF PROLONGED FEVER IN RURAL TEACHING HOSPITAL

Venugopal Gupta A., Lokendranath G*., Hemanth Kumar K and Prabhakar Rao R

Santhiram Medical College & Gen. Hospital, Nandyal

DOI: http://dx.doi.org/10.24327/ijrsr.2017.0809.0821

ARTICLE INFO

Article History:

Received 17th June, 2017
Received in revised form 21st July, 2017
Accepted 05th August, 2017
Published online 28th September, 2017

Key Words:

Prolonged Fever, Aetiology, Diagnostic Procedure, Infection, Neoplasm, Tuberculosis, HIV (Human Immunodeficiency Virus)

ABSTRACT

Background: Fever has been recognized as a cardinal manifestation of disease. Fever was well known to ancients as an important manifestation of illness, but it remained for modern medical science to provide a better understanding of the significance of body temperature variations in health and diseases.

Aims and objectives: To study the etiological factors responsible for prolonged fevers. To know the associated commonest clinical findings in prolonged fevers**.**

Methods: In 100 patients who met with inclusion criteria and exclusion criteria are subjected to detailed clinical examination and investigation, depending upon the data obtained, results are evaluated, tabulated and the percentage of diseases causing prolonged fever is calculated.

RESULTS: At the end of the study infectious diseases (75%) constitutes the commonest cause for prolonged fever, followed by neoplastic diseases (18%), connective tissue disorder (3%), miscellaneous (1%) and undiagnosed (3%). Among the infectious diseases Tuberculosis was the commonest cause for prolonged fever (34%).

Copyright © Venugopal Gupta A *et al*, 2017, this is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

Although Gallieo in the 16th century and S. Santorio in the 17th century constructed devices to measure body temperature, an effective thermometer was not developed until beginning of the 18th century by Dutch instrument maker Gabriel Daniel Fahrenheit.[4] Wonderlich in 1868 clearly established that abnormality of temperature was a cardinal sign of diseases and normality of temperature a sign of health.[2] Since then Physicians have used fever as a reliable guide to the presence of disease and the response of disease to therapy. It is in the diagnosis of a febrile illness that the science and art of medicine came together.[5]Prolonged fevers are likely to be source of perplexity and frustration to the Physicians and for the patients. The discomfort of illness is elevated by the anxiety of uncertainty. These victims tend to seek additional medical opinions and may wander from hospital to hospital repeatedly enduring the same laboratory tests. The present study comprises of a brief review of literature, clinical and laboratory study of 100 cases of prolonged fever admitted to Santhiram medical college and General hospital at Nandyal.

MATERIALS AND METHODS

This study comprises 100 cases of prolonged fever admitted to Santhiram Medical College and General Hospital, Nandyal between November 2015 to October 2016. Case selection was random with respect to age, sex and type of fever. The study includedpatients presenting with fever for more than two weeks (14 days) at Santhiram Medical College and General Hospital, Nandyal. We excluded patients present with fever for less than 2 weeks, Patients aged less than 12 years and patients with pregnancy. All cases with oral temperature higher than 38°C(100.4°F) or rectal temperature higher than 38.5°C on more than four occasions for at least two weeks(14 days) period were selected for the study.[6,7] A detailed history was taken and physical examination was done as per the planned proforma. Temperature was recorded 4th hourly. All patients were investigated routinely for Hb%, WBC, TC, DC, ESR and C-Reactive Protein; Smear for malarial parasite; screening of chest X-ray; Urine for albumin, sugar and microscopy; Stool for microscopy and occult blood. Further investigations were done based on the physical findings pointing to a particular disease and the provisional diagnosis. During their stay in the hospital, daily repeated clinical examination was done to look for new clinical signs that may give clue to the diagnosis.

OBSERVATIONS AND RESULTS

Hundred cases of prolonged fever were included in the study, sex distribution males outnumbered females (male 72 i.e., 72% and female 28 i.e. 28%) with male to female ratio being 2.6 : 1.

Corresponding author:* **Lokendranath G
Santhiram Medical College & Gen. Hospital, Nandyal

The study includes age group from 16 years to 70 years, among this majority are in the age group of 16 to 30 years 46 (46%) followed by age group above 50 years 22 (22%). Among males, majority were below 40 years (i.e., 46 out of 72 males of all age group) and among females majority were below 30 years (i.e., 14 out of 28).

Table 1 Age wise distribution

Age	Male	Female
16-30 yrs	46%	14%
>50 yrs	26%	14%

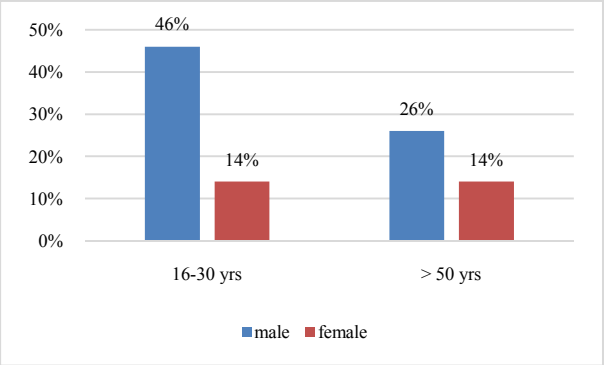
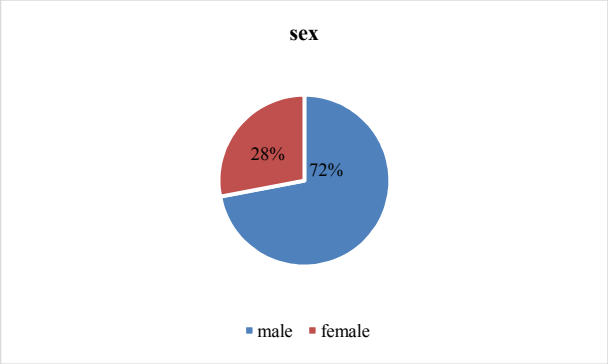


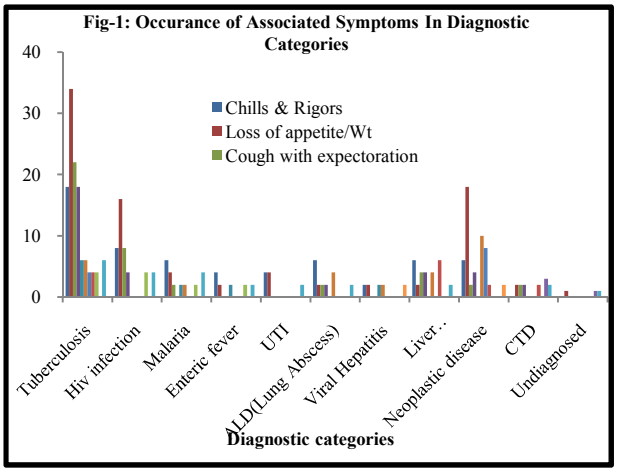
Table 2 Sex wise distribution

Sex	Number	Percentage
Males	72	72%
Females	28	28%



Symptomatology

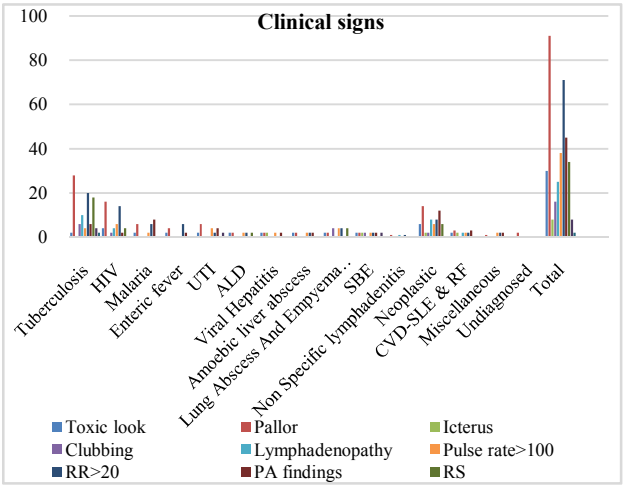
The duration of fever varied from 15 days to 10 months. Fever was the presenting symptom in all cases.

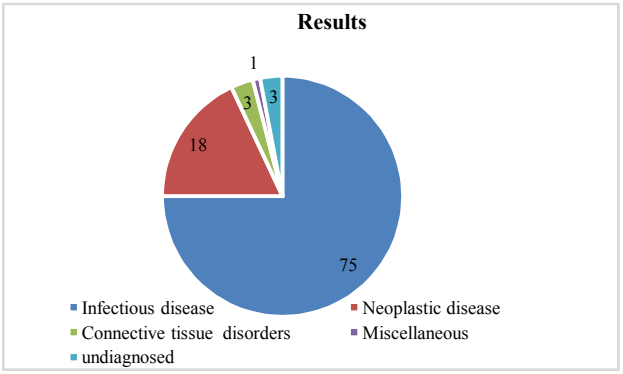


Among associated symptoms, loss of appetite and loss of weight were the commonest symptoms in 86 cases (86%). Second commonest associated symptom was Chills ± rigors 60 cases (60%) followed by third common associated symptom was cough with expectoration 42 cases (42%). Other associated symptoms are Breathlessness 34 cases (34%), Abdominal pain 28 cases (28%), Headache 24 cases (24%), Vomiting 12 cases (12%), Loose stool 12 cases (12%), Abdominal distension 12 cases (12%), Chest pain / Palpitation 14 cases (14%), and Joint pain and jaundice 2 cases each (4%).

Clinical Signs

Rise in oral temperature above 100.4°F was common clinical sign present in all the cases. Among the associated clinical signs pallor was the commonest clinical sign present in 92 cases (92%) followed by second common clinical sign tachypnoea with respiratory rate more than 20 in 72 cases (72%).Third common associated clinical sign was per abdomen finding in 48 cases (48%). Other associated clinical signs are as follows - pulse rate more than 100 in 38 cases (38%), RS findings 34 cases (34%), toxic look 30 (30%), lymphadenopathy 26 (26%), clubbing 16 (16%), icterus 8 (8%) CVS finding 8 (8%) & CNS finding 2 (2%).





Reasonable diagnosis was made in 97 cases out of total 100 cases. 75 cases were infectious diseases, 18 were neoplastic disease, 3 belonged to connective tissue disorders, one had lymphocytic thyroiditis and 3 remained undiagnosed. Despite many statements to the contrary, tuberculosis is still a major cause for prolonged fever, as it accounted for 28% of cases in the present study.

Among neoplastic diseases, Hodgkin's lymphoma was commonest i.e., 4 out of 18 cases. Hepatoma, bronchogenic carcinoma, CML, NHL, CLL, Ca- stomach, secondaries (adenocarcinoma) in pleura constitutes one each. In connective tissue disorder group (3%), one case was diagnosed as Acute Rheumatic fever and other two were Systemic Lupus Erythematosus. Lymphocytic Thyroiditis as a cause for prolonged fever was observed in one case out of 100 cases.

DISCUSSION

100 cases of prolonged fever were included in this study. Males were more affected than females. Male to female ratio is 2.6:1. In males, majority were below the age group of 40 years and in females majority were below the age group of 30 years. Out of 100 cases, 75 (75%) cases were due to infections, representing the frequent occurrence of infections. Out of 34 cases of Tuberculosis, 28 were Tuberculosis without HIV infection and 6 were TB with HIV infection. In the present study, there were 16 cases of HIV infection, out of which 6 cases were associated with tubercular infection. In the present study, 6 cases of enteric fever were recorded and 6 cases of Malaria were recorded, responded well to Chloroquine and Pyrimethamine followed by Primaquine in P. vivax. In the present study, 6 cases of urinary tract infection were recorded. Urine culture was positive in all 6 cases. Two cases of amoebic liver disease were encountered during the study. In the present study, totally 18 cases of neoplastic diseases were noted. 3 cases of connective tissue disorders (3%) were noted in this study. Among the miscellaneous causes, one case was diagnosed as Lymphocytic Thyroiditis. Three cases remained undiagnosed after extensive investigations in the present study.
Most febrile conditions are readily diagnosed on the basis of presenting symptoms and a problem-focused physical examination. Occasionally, simple testing such as a complete blood count or urine cultures required to make a definitive diagnosis. Viral illnesses (e.g., upper respiratory infections) account for most of these self-limiting cases and usually resolve within two weeks. When fever persists, a more extensive diagnostic investigation should be conducted. Although some persistent fevers are manifestations of serious illnesses, most can be readily diagnosed and treated.

CONCLUSIONS

100 cases of patients with a history of fever of more than 14 days duration, admitted to Santhiram Medical College and General Hospital at Nandyal, taken up for clinical and laboratory evaluation in order to know the causes. Males outnumbered the females. Infection (75%) was the frequent and most common cause for prolonged fever in the cases studied.

Among infection group, majority of the cases were of tubercular etiology[8] (34%), HIV (16%) infection constitutes the second commonest cause of prolonged fever suggesting an alarming raise in the incidence of HIV infection in recent days[9]. Neoplastic diseases were also an important cause of prolonged fever, as 1/5th of the total number of cases in this study belongs to neoplastic disease.

Screening for unusual clinical conditions such as connective tissue disorders, auto immune disorders like lymphocytic thyroiditis etc., as rare causes were very useful in establishing the etiology of prolonged fever. Apart from routine investigations, serological tests like ELISA test and procedures like FNAC, biopsy studies were also of immense help in evaluation the cases of prolonged fever. Usually the simple diagnostic procedure will clinch the diagnosis in most of the cases. However evaluation of occult infection and neoplasm should not be missed while diagnosing the cause of prolonged fever.

References

1. Dennis L Kasper, Eugene Braunwald, Anthony S Faucci, Stephen L Hausar, Dan L Longo and J Larry Jamesson. Harrison's principles of internal medicine 16th edition, Mc Graw hill publications 2005:1218 and 118-121.
2. Eric B Larson *et al*: Fever of undetermined origin: Diagnosis and follow up of 105 cases, 1970-1980. *Medicine* 1982; 61: 269-292.
3. Sheila M Nolan etal: Fever of unknown origin-The general internist's approach. Postgraduate medicine 1987; 81(5):190-205.
4. Larsen B E *et al*: Fever of unknown origin. Med vol. 61, No.5, 1970-80.
5. Kurt J Issel Bacheretal: Fever including fever of unknown origin. Harrison's principles of internal medicine, 13th edition vol-1, Mcgraw hill, 1994, p 81-90.
6. Petersdorf R G, Beeson P B; Fever of unexplained origin. Report of 100 cases. Medicine 40; 1-30: 1961.
7. Manson text book of tropical diseases. Prolonged fever 19th ed, 935-936.
8. Anthony Seaton *et al*. Clinical features of tuberculosis. Croften and Douglas's respiratory diseases, 4thed, Blackwell Sci, 1989, P395-422.
9. Carpenter C, Mayer K. Advances in AIDS and HIV infections. In advantages in internal medicine, Chicago, Year book Medical, P. 45, 1988.

How to cite this article:

Venugopal Gupta A *et al*.2017, Analytical Study of Prolonged Fever In Rural Teaching Hospital. *Int J Recent Sci Res.* 8(9), pp. 20080-20082. DOI: http://dx.doi.org/10.24327/ijrsr.2017.0809.0821

****