PREVALENCE OF PYREXIA OF UNKNOWN ORIGIN AMONG PATIENTS PRESENTING IN OUTDOOR DEPARTMENT

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ABSTRACT:
Pyrexia of unknown origin (PUO) refers to a condition in which the patient has an elevated temperature (fever) but despite investigations by a physician no explanation has been found. This cross-sectional study was conducted among the patients presenting in the medical outdoor department of different hospitals. Name, age, gender and history and duration of fever were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. A total of 100 patients with history of fever were included in this study i.e., 50 males (50%) and 50 females (50%). The mean age of the patients was 29.43±4.23 years. Out of 100 patients, fifteen patients were labelled as having pyrexia of unknown origin.

KEYWORD: PYREXIA OF UNKNOWN ORIGIN
INTRODUCTION:

Pyrexia of unknown origin (PUO) refers to a condition in which the patient has an elevated temperature (fever) but despite investigations by a physician no explanation has been found. If the cause is found it is usually a diagnosis of exclusion, that is, by eliminating all possibilities until only one explanation remains, and taking this as the correct one. Extrapulmonary tuberculosis is the most frequent cause of FUO. Drug-induced hyperthermia, as the sole symptom of an adverse drug reaction, should always be considered. Disseminated granulomatous infections such as tuberculosis, histoplasmosis, coccidioidomycosis, blastomycosis and sarcoidosis are associated with FUO. Lymphomas are the most common cause of FUO in adults. Thromboembolic disease (i.e. pulmonary embolism, deep venous thrombosis) occasionally shows fever. Although infrequent, its potentially lethal consequences warrant evaluation of this cause. Endocarditis, although uncommon, is another important etiology to consider. Bartonella infections are also known to cause fever of unknown origin. A comprehensive and meticulous history (i.e. illness of family members, recent visit to the tropics, medication), repeated physical examination (i.e. skin rash, eschar, lymphadenopathy, heart murmur) and myriad laboratory tests (serological, blood culture, immunological) are the cornerstone of finding the cause.

Other investigations may be needed. Ultrasound may show cholelithiasis, echocardiography may be needed in suspected endocarditis and a CT-scan may show infection or malignancy of internal organs. Another technique is Gallium-67 scanning which seems to visualize chronic infections more effectively. Invasive techniques (biopsy and laparotomy for pathological and bacteriological examination) may be required before a definite diagnosis is possible. Positron emission tomography using radioactively labelled fluorodeoxyglucose (FDG) has been reported to have a sensitivity of 84% and a specificity of 86% for localizing the source of fever of unknown origin. Despite all this, diagnosis may only be suggested by the therapy chosen. When a patient recovers after discontinuing medication it likely was drug...
fever, when antibiotics or antimycotics work it probably was infection. Empirical therapeutic trials should be used in those patients in which other techniques have failed (1-3).

**MATERIAL AND METHODS:**
This cross-sectional study was conducted among the patients presenting in the medical outdoor department of different hospitals. Name, age, gender and history and duration of fever were noted on a predefined proforma. All the data was entered and analyzed with SPSS Ver. 23.0. The quantitative variables were presented as mean and standard deviation. The qualitative variables were presented as frequency and percentages.

**RESULTS:**
A total of 100 patients with history of fever were included in this study i.e., 50 males (50%) and 50 females (50%). The mean age of the patients was 29.43±4.23 years. Out of 100 patients, fifteen patients were labelled as having pyrexia of unknown origin.

**DISCUSSION:**
Fever, also referred to as pyrexia, is defined as having a temperature above the normal range due to an increase in the body’s temperature set point. There is not a single agreed-upon upper limit for normal temperature with sources using values between 37.2 and 38.3 °C (99.0 and 100.9 °F) in humans. The increase in set point triggers increased muscle contractions and causes a feeling of cold. This results in greater heat production and efforts to conserve heat. When the set point temperature returns to normal, a person feels hot, becomes flushed, and may begin to sweat. Rarely a fever may trigger a febrile seizure, with this being more common in young children. Fevers do not typically go higher than 41 to 42 °C (105.8 to 107.6 °F). A fever can be caused by many medical conditions ranging from non-serious to life-threatening. This includes viral, bacterial, and parasitic infections—such as influenza, the
common cold, meningitis, urinary tract infections, appendicitis, COVID-19, and malaria. Non-infectious causes include vasculitis, deep vein thrombosis, connective tissue disease, side effects of medication, and cancer. It differs from hyperthermia, in that hyperthermia is an increase in body temperature over the temperature set point, due to either too much heat production or not enough heat loss. Unless the patient is acutely ill, no therapy should be started before the cause has been found. This is because non-specific therapy is rarely effective and mostly delays diagnosis. An exception is made for neutropenic (low white blood cell count) patients in which delay could lead to serious complications. After blood cultures are taken this condition is aggressively treated with broad-spectrum antibiotics. Antibiotics are adjusted according to the results of the cultures taken. HIV-infected persons with pyrexia and hypoxia will be started on medication for possible Pneumocystis jirovecii infection. Therapy is adjusted after a diagnosis is made. Since there is a wide range of conditions associated with FUO, prognosis depends on the cause. If after 6 to 12 months no diagnosis is found, the chances diminish of ever finding a specific cause. However, under those circumstances prognosis is good (4-6).

REFERENCES:


