

A Possibility of Psychogenic Fever: A Case Report

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Introduction

When the rise of the core body temperature happens without any inflammatory cause, highly associated with psychological stressors gets diagnosed as Psychogenic fever.

Psychogenic fever is a very common psychosomatic disease. It is diagnosed when 1. there is no organic disease that accounts for the fever, 2. the fever develops in a psychologically stressful situation. Psychogenic fever can be divided on the basis on duration and magnitude. Every emotional stress leads to a (short-lasting) increase in the core body temperature. The mechanism through which psychological stress increases a patient's body temperature is not yet fully elucidated. The condition is also referred to as 'stress induced hyperthermia'.

Case Presentation

This case involves a 17 year old teenage boy who was brought with primary concerns of high grade fever.

The boy first reported an episode of shortness of breath, and weakness in Grade 6, in 2015. He was hospitalized for the same and diagnosed with conversion disorder. School refusal was the primary manifestation and was resolved within a few weeks with regular psychotherapy. He was reportedly asymptomatic thereafter.

It was reported that he had no friends till Grade 8. In Grade 9, due to shuffling of classes he made few friends and enjoyed their company. However, in Grade 10, there was re-shuffling of classes and his friends were in different classes. He made several attempts to keep in touch with them; however, there were misunderstandings leading to loss of friendship. This instilled feelings of guilt, betrayal and mistrust in him, especially with his friends. He reported low mood and feeling of loneliness in Grade 10.

In Grade 11, some events with friends strengthened his feeling of mistrust in people. In summer of Grade 11 (2020), he reported severe stomachaches and blood in vomit. In November 2020, his symptoms transitioned to high-grade fever of up to 102-105 degrees Celsius. He was hospitalized at Medanta Hospital, Delhi NCR when the fever went up to 107 degrees Celsius. He underwent several investigations with no definitive results:

- CBC - TLC normal, DLC normal, borderline low neutrophils and mild eosinophilia (similar patterns reported previously).
- Increase in IgE levels.
- Negative malarial parasite examination
- Negative cultures (multiple)

- Negative radiology tests: Chest x-ray, abdomen ultrasound, PET CT and Echo
- Negative bone marrow aspiration
- Negative Brucella serology
- No significant findings in MRI Brain.

There was also no response to treatment of deworming agents, antimalarials and various antibiotics. In December 2020, he again reported fever of 105 degrees and underwent a therapeutic trial with steroids. There was no sustained effect. There was no evidence of malignancy, periodic or cyclic fever, Familial Mediterranean Fever (FMF) or Still's disease.

It was reported that the family stopped all medication on December 31, 2020. In January 2021, the fever went up to 107 degrees Celsius. The high-grade fever would occur approximately once in 2-3 days and would last for approximately 2-4 hours. This was followed up by post fever weakness. His body temperature would then drop to approximately 91 degrees Celsius followed by body weakness. History of low mood, anxiety and lethargy were reported. He reported experiencing nightmares with images and videos of fear of being killed by demons. The Psychiatrist prescribed anti-depressant and anti-anxiety medications.

A diagnosis of factitious fever was ruled out as there was no evidence of manipulation of his body temperature using the thermometer. It was then concluded that he has psychogenic fevers. He started regular online psychotherapy in March 2021. For a period of 3-4 months, no fever was reported.

Currently, he experiences fever with less frequency and duration.

Family Dynamics

The boy stays in a nuclear family setup with his parents, grandmother and younger brother of 14 years of age. His grandfather passed away in the year 2012 due to brain cancer. he was reportedly attached to his grandfather and wanted to pursue a career in the field of science to research in the field of cancer.

According to the mother, he is close to her. He shares experiences and emotions with her. During the therapy sessions it was noticed that mother is able to influence the actions of others. His father is a strict parent with an orthodox belief system. He reportedly spends less time with the children. Father usually disciplines the children and communicates restrictions to the children, if any.

Discussion and Conclusion

Psychogenic Fever is not identified as an established clinical entity in the DSM-5 or ICD-11. Psychogenic Fever is also underdiagnosed and underestimated because the association between stress and fever is difficult to prove.

His features also at some point better accounted for conversion disorder due to indifference to the symptoms, and presence of some secondary gains to the presence of fever.

The mechanism of psychogenic fever is still not fully understood. Psychogenic fever responds to anti-anxiety drugs and sedatives and can be resolved by psychotherapy, dealing with the stressor and the problem solving skills of the client.

In this case the mistrust in friends and family growing in the mind of the patient turned to be the stressor leading to high grade fever. This mistrust also slowed the pace of therapeutic work, as he found it difficult to trust anyone.

To conclude, Psychogenic fever is a difficult diagnosis to make and lack of enough research makes it difficult to manage.

References

- Palazzi DL. Fever of unknown origin in children: evaluation [online]. URL: <https://www.uptodate.com/contents/fever-of-unknown-origin-in-children-evaluation>
- University of Rochester Medical Center. Children under stress develop more fevers [online] URL: <https://www.sciencedaily.com/releases/2007/03/0703/05202905.htm>
- Oka T. Psychogenic fever: how psychological stress affects body temperature in the clinical population. *Temperature (Austin)* 2015; 2(3): 368-78.
- Oliver B. Psychogenic fever, functional fever, or psychogenic hyperthermia? *Temperature (Austin)* 2015; 2(3): 324-5