

ATYPICAL CHEST PAIN IN SOLDIERS SERVING IN HARD AREAS: A CARDIOVASCULAR AND PSYCHODIAGNOSTIC ASSESSMENT

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ABSTRACT

Objective: To assess the relationship between psychological illnesses and atypical chest pain in reported cases of soldiers serving in hard areas.

Study Design: A cross-sectional study.

Place and Duration of Study: Armed Forces Institute of Cardiology (AFIC) & National Institute of Heart Diseases (NIHD) Rawalpindi from Nov 2012 to Oct 2013.

Patients and Methods: Forty patients through non-probability convenience sampling were studied with complaints of chest pain besides no evidence of heart disease once assessed by ECHO, computerized tomography (CT) Angio, Thallium Scan and echocardiography (ECG), they were subjected to psychometric assessment.

Results: Out of 40 patients 72.5% (n=29) were found to have psychiatric illnesses including, depressive disorder (n=26), adjustment disorder (n=2), and malingering (n=1). Of these 29 patients, 42.5% (n=17) appeared with mild (acute) symptoms of depression and 15% (n=6.6) with moderate and severe depression respectively.

Conclusion: Psychiatric illnesses mostly go unrecognized and in order to overcome the current stressor generally an individual tries to display it in socially acceptable organic disorders to avoid stigmatization.

Keywords: Atypical chest pain, Cardio vascular, Psychodiagnostic assessment.

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INTRODUCTION

Soldiers are a proud lot strange and upright in most of the cases however, when they are devastated by emotional, social and intellectual deficits they surrender to psychiatric illnesses. To be labeled with a psychiatric diagnosis is associated with stigmatization. That may eventually lead to a feeling of rejection, devaluation, discrimination and reduced social networking in the affected individual. Alternatively many people somatize with symptoms like "chest pain". So, one of the manifestation is "Chest Pain".

There are several causes of chest pain, the one most complicated and difficult to diagnose is that linked with anxiety and depression. The allied symptoms may include shortness of breath, palpitations, faintness and prickling sensations. Our soldiers deployed at high altitude and war zones encounter different

stressors in the daily happenings like family burden, limited contact with family, treacherous terrain, serious injury, witnessing death of colleague and threat of a death. These upsets can precipitate a psychological pain in the "Jawan" mostly depicted as chest pain. It is most common among soldiers serving at high altitude or at war zones. Thus the safest and the dignified mode of escape land them to Armed Forces Institute of Cardiology (AFIC) and National Institute of heart Diseases (NIHD). The study was carried out to identify the psychiatric illnesses in soldiers entering in cardiac setup with chest pain.

MATERIAL AND METHODS

The subjects included the indoor patients of AFIC & NIHD Rawalpindi who reported between Nov 2012 to Oct 2013. All serving soldiers evacuated from Combined Military Hospitals (CMH's) surrounding the operational area (hard area) with the complaints of chest pain were evaluated to streamline their primary complaint. Those found without any cardiac manifestation were included in the study.

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Soldiers with any history of a previous cardiac disorder, or adults having any pathology other than of psychiatric origin were excluded from the study.

Chest Pain is defined as:

- Ambiances in chest followed by symptoms like pressing, heaviness etc.
- Includes the radioation in shoulders, neck, inner arm.
- Moderately predictable.
- It stays for at least 3–15 min.
- Shows good results with nitroglycerin and escape from stressful environment.

Non-cardiac chest pain: Atypical chest pain is defined as¹:

- Discomfort in the form of high-pitched, sharp and perforating pain.
- Affected area is usually chest wall, is positional.
- It has a random onset.
- Duration varies from seconds, minutes to all day.
- Nitroglycerin has inconsistent reaction.

Definition of mental disorder: Mental disorders are defined in diagnostic and statistical manual of mental disorders IV-TR as²:

- It is a behavioral or psychological condition or pattern.
- The relative cause includes suffering (from death, disease), disability or impairment in social and occupational

- The behavior does not support to be result of divergence from any group conformity.

Data Collection Procedure

All serving soldiers presenting with chest pain were evaluated. History and cardiac evaluation was done to evaluate those with some organic/cardiac problem. After taking history, patients with atypical chest pain were administered Beck depressive inventory which has inter-rater reliability of 0.83.

Statistical Analysis

Database was prepared in Statistical Package for Social Sciences SPSS 19. Descriptive statistics was expended in order to determine the frequency of psychological illnesses in solders having atypical chest pain.

RESULTS

A convenience sampling including the 40 soldiers reflects 72.5 % (f=29) of the individuals had psychiatric complications. Secondly, the troops had come up with psychiatric complications like depressive disorder (65%), adjustment disorder (5%) and 2.5% with malingering. Out of this 65%, severity of illness was found mild with 42.5% of the cases and 15% respectively had moderate to severe depression on the Beck Depressive Severity index.

DISCUSSION

Army personnel generally confronts many challenges. For instance, soldiers may experience various psychological strains like deployment in war zones, monotony, fear of death, lack of interaction with families and adjustment issues can precipitate mental

| Psychiatric Manifestation | No of reported cases | Percentage |
|---------------------------|----------------------|------------|
| Yes | 29 | 72.5 % |
| No | 11 | 27.5 % |
| | 40 | |

functioning.

- Considers being an expression of behavioral, psychological or biological impairment in an individual.

illnesses including anxiety disorders, depressive disorders and posttraumatic stress disorder⁴. The psychiatric illness thus has the effect of stigmatization associated with it. So, the pain is there but treatment process is

hindered by social pressure that in turn comes with certain acceptable syndromes. The easy and the immediate escape brings the sufferer to cardiac setup for the resolution of psychiatric ache. As evident from the above-mentioned results that 72.5% (n=29) of the patients reported with "Chest Pain" had actually have forms of psychiatric illnesses. Dr. Stephen R. Muza, research physiologist at USARIEM, describes that with the certain rise in the height physical and cognitive performance regresses⁵. Also evident from researches, the coping mechanism and thus the problem solving skills deteriorates that blockage leads to the onset of psychiatric illnesses.

An important factor was the impact of the posting station. All soldiers in the course of study reported from hard areas and had experienced toughness and stiffness of treacherous terrain, at the same time level of commitment that stays them away from their families for a longer period. High altitude has various upsets with it like Acute Mountain Sickness; symptoms include fatigue, weakness and poor appetite that warrants clinical attention⁶. So, various physiological and psychological complications mingle that evacuate the individual from the stressful location. According to one of the American statistics, it was found that many of the soldiers do not pursue to the mental health professionals because of the perceived threat to their careers⁷.

In the present study, mostly reported cases had mild to moderate depression i.e 42.5% (n=17) and 15% (n=6) respectively. Since, a minimum portion comes up with chronic symptoms of depression that is 15% (n=6) that is infect another indicator of the present unstable emotional state that might be the result of current disturbed equilibrium at that place. The result supports the presence of mental disorders in serving soldiers that needs to be identified in order to save the prestigious institution. Thus to be labeled with psychiatric disorder seems to be a source of disgrace and embarrassment to the sufferer and family that

in turn inhibits him/her from taking help⁶. In one American survey, it was observed that one of the important referral in hospitals is mental disorder in serving troops⁷. A need is felt in order to streamline the barriers that obstruct the soldiers from getting help.

Limitation of the Study

The results have limited generalizability because of the small sample size and cross-sectional nature of the study.

CONCLUSION

There are various types of chest pain; the one includes non-cardiac chest pain. Differential diagnosis includes oesophageal disorders, Pleural pain, Tietz syndrome and psychological causes. Psychological origins can be anxiety, depression, somatization and panic attacks¹⁰. Thus these strains have a ripple effect not only on the individual but also on the family and the institution. There is a need for identification of psychological state of soldiers and removal of stigma associated with it, in order to enhance better functioning on social and occupational spheres.

CONFLICT OF INTEREST

The authors of this study reported no conflict of interest.

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