CODEN (USA): IAJPBB ISSN: 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES

http://doi.org/10.5281/zenodo.557104

Available online at: http://www.iajps.com ***Research Article***

A DIAGNOSTIC AUDIT OF PATIENTS REFERRED TO CARDIOLOGY DEPARTMENT WITH NON-CARDIAC CHEST PAIN & BENIGN PALPITATIONS AT LIAQUAT UNIVERSITY HOSPITAL, HYDERABAD

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Received: 05 April 2017 **Accepted:** 20 April 2017

Abstract:

Objective

To carry out a diagnostic audit of patients referred to the cardiology department complaining of chest pain and palpitations with special focus on the complaints that are non-cardiac and benign in nature. This shall serve to identify the burden on the cardiology department.

Methodology

The single center study is conducted at a tertiary hospital (Liaquat University Hospital) receiving new referrals from a health district (Hyderabad) and carried out jointly by the department of cardiology and the department of medicine unit II. 94 consecutive referrals by OPD and/or COD to the cardiology department and then to the medical unit II (on Tuesdays during June 2016) with the presenting disorder of chest pain or palpitations were assessed at first attendance (research interview, doctors' ratings, accounts of medical history and ECG).

Results

39 patients were given a cardiac diagnosis and 51 patients were not given a cardiac diagnosis. The non-cardiac group was more likely to be young women, and to report other physical symptoms and previous psychiatric problems.

Conclusion

The results show that a majority of the patients referred to the cardiology department did not eventually have a cardiac issue and consequently add to the patient load presenting at the department. The non-cardiac patients do pre-occupy the hospital staff and add to the delay in health care received by genuinely cardiac patients. The non-cardiac patients (ones with other major physical diagnoses) also suffer due to patients with functional symptoms owing to stress and anxiety. A mechanism needs to be implemented to make this process efficient.

Furthermore the concept of considering non-cardiac chest pain and benign palpitations as less important and taking them less seriously should be shunned. Even though these complaints have a lesser mortality but a morbidity that matches its counterpart. Patients experiencing the symptoms regard their pain as very important and a physician should give them their due importance by treating them just as urgently as any other disease. Effective methods of pain relief too should be available at hand for the physician so as to give the patient instant relief.

Recommendations

ECG facilities should be available at the OPD and COD departments to quickly rule out cardiac issues so as to prevent sending the patients to useless trips different departments.

Key words: *Chest pain, Palpitations, Benign palpitations, Non-cardiac chest pain and Hospital burden.*

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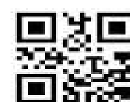


Please cite this article in press as Muhammad Iqbal Shah et al, ***A Diagnostic Audit of Patients Referred to Cardiology Department with Non-cardiac Chest Pain & Benign Palpitations at Liaquat University Hospital, Hyderabad****, Indo Am. J. Pharm. Sci, 2017; 4(04).*

INTRODUCTION:

The complaint of chest pain and palpitation is widespread in the public, with levels reaching up to 40% and 11% respectively [1-3]. The two aforementioned complaints also happen to be the most common causes a patient gets referred to the department of cardiology[4] but the cause of chest pain and palpitation in more than half of the cases turns out to be non-cardiac in nature[5]. Research shows that only 27% of outpatient visits owing to chest pain had a cardiac cause for the symptoms [6]. Investigations that can confirm the cause of non-cardiac morbidity can be difficult and time consuming. However, the conditions can be ruled out using the best accessible cardiac investigation i.e. ECG.

Apart from the department of cardiology, non-cardiac chest pain is a significant trouble in general practice too, in out-patient departments, and in the general medicine wards. Few patients are counselled that their chest pain does not stem from any underlying cardiac cause but the patients keep on presenting back to the hospital repeatedly for follow up[7-9].

Most papers have highlighted chest pain whereas palpitations have largely been ignored in literature. Much attention has been focused towards treating chest pain[10-20] and palpitations consequently have not been documented much. Our study, however, gives the matter its due share of importance and co-variates both chest pain and palpitations.

Simply stating, palpitation are conscious awareness of one's own heartbeat. Palpitations too are among the most common presenting complaints with which patients present to general medicine practitioners and cardiologists. Even though palpitations are more often than not benign, they may be an indication of a probably life-threatening anomaly. General medical practitioners encountered with this fear, often refer the patients to the cardiology department instead of sending them back home with conservative [21].

Literature suggests that patients presenting with palpitation when made to undergo twenty four hour electrocardiography (ECG) recording, are often revealed to have no signs of clinically significant arrhythmias[22]. Despite not being clinically significant, symptoms and diebility tend to linger on for a long time [23-27].

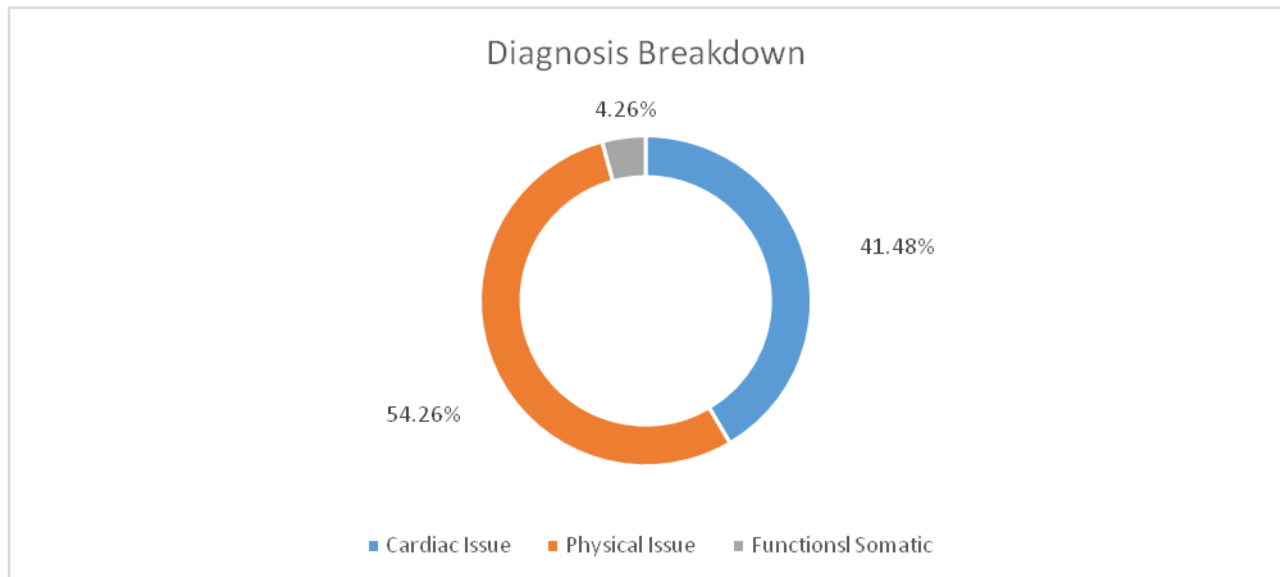
This paper describes the evaluation and management of patients referred to the department of cardiology at Liaquat University Hospital, Hyderabad and talks of their functional and symptomatic results. Results pertaining to those with and without cardiac anomalies are compared and contrasted, and issues relating to patients thought not to have heart disease are examined. This study thus is a diagnostic audit of patients referred to the cardiology department complaining of chest pain and palpitations with special focus on the complaints that are non-cardiac and benign in nature. This shall serve to identify the burden on the cardiology department.

MATERIAL AND METHODS:

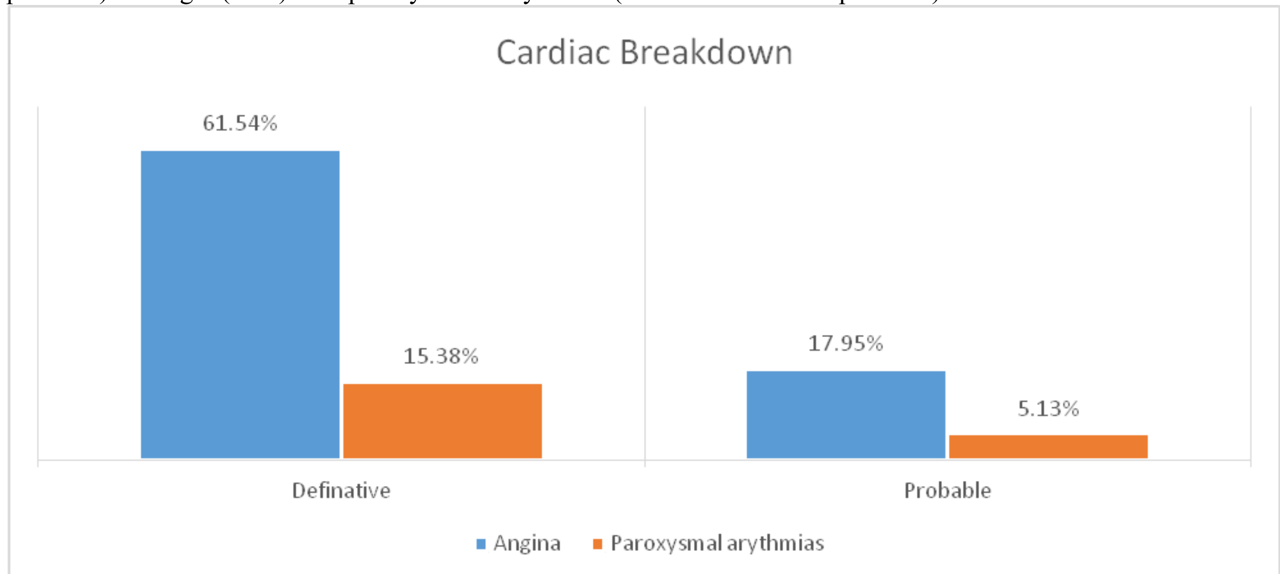
Consecutive patients referred by the outpatient department and casualty outpatient department to the department of cardiology with presenting disorders of chest pain or palpitations were identified at their outpatient attendance. Characteristics of patients with cardiac diagnoses (definite or probable) and those with no cardiac or other major physical diagnosis. Subjects were interviewed using a brief semi-structured interview based questionnaire, following which, cardiac assessment was done by trained staff of the department. All subjects were made to undergo an electrocardiography to supplement the clinical diagnosis. Further information was abstracted from accounts of previous medical history presented by the subjects.

RESULTS:

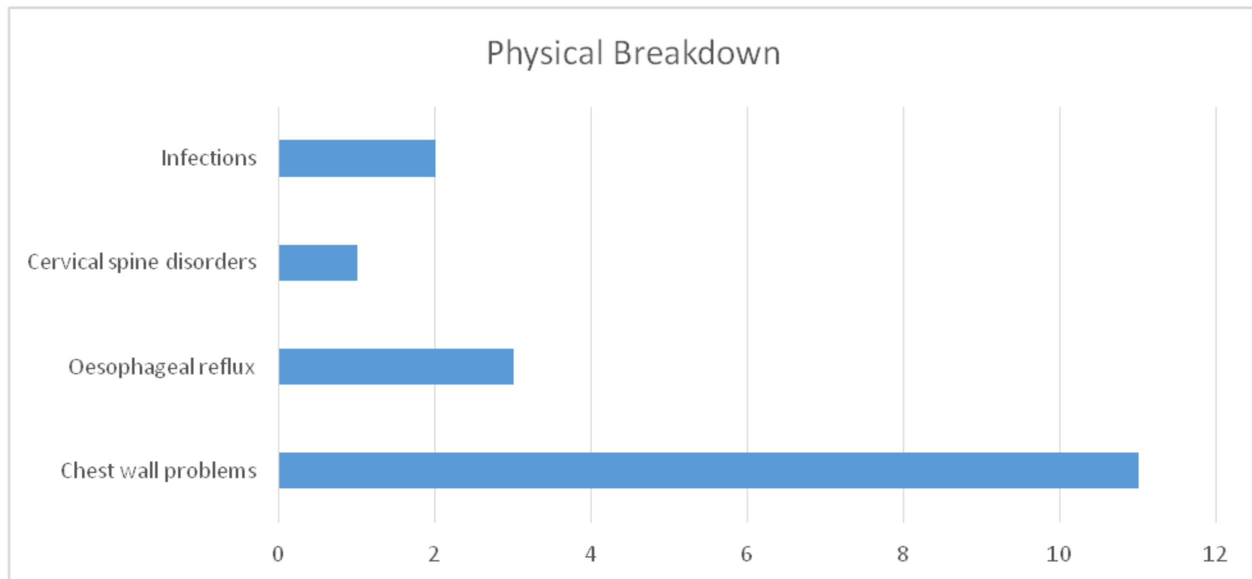
Most patients had been evaluated at either the outpatient or the casualty outpatient department before referral and were eventually referred to establish a definite diagnosis for chest pain and palpitations. Even if the hospital staff had managed to rule out cardiac causes, the patients were still referred since risk could not be taken. 39 of the ninety four (41%) consecutive referrals were given either a definite or a probable cardiac diagnosis (cardiac group). Fifty one (54%) were given a physical diagnosis (non-cardiac group) while the rest were labeled as suffering from functional somatic symptoms.



The department of cardiology diagnosed heart disease in 39 patients, 31 (79%) with angina (24 definite and seven probable) and eight (21%) with paroxysmal arrhythmias (six definite and two probable).



The physical breakdown of the non-cardiac chest pain and benign palpitations is both interesting and enlightening. The results show that it can be anything between infections to medical conditions such as oesophageal reflux and may even be major problems (cervical spine disorders) requiring surgical and/or orthopedic referrals. The most common however, were chest wall problems, which were mainly musculoskeletal in origin arising from over-exertion or fatigue of the underlying muscles, fatigue and even trauma. The second in line was oesophageal reflux, a very common problem nowadays that mimics symptoms of heart disease and is truly the very second thing that comes to the mind of a physician in our setting when a patient comes complaining of non-cardiac chest pain. Investigations that can solidify the diagnosis is history of previous incidences of heartburn and reflux, that if attains severity leads to severe chest pain. Even though these complaints have a lesser mortality but a morbidity that matches its counterpart. Patients experiencing the symptoms regard their pain as very important and a physician should give them their due importance by treating them just as urgently as any other disease. Effective methods of pain relief too should be available at hand for the physician so as to give the patient instant relief. The other reasons along with the complete breakdown are depicted in the figure below.



DISCUSSION:

Our research includes a consecutive array of referrals from O.P.D and/or C.O.D to the cardiology department providing service to an entire district and more. Patients felt relieved to have received a favorable diagnosis but an unlucky few, fearing a probable cardiac anomaly did not offer ample information and just talked about the pain and requested a quick fix to the problem so that they could return to their lives and homes without a care for their long-term health.

Another obstacle in the daily clinical practice is brought about by functional somatic symptoms, [22] such as persistent non-cardiac chest pain and benign palpitations that arouse false beliefs and inflate minor physical pathology as evidence of heart disease. Misinterpretations are most probable among subjects that are a victim of hypo-chondriacal disposition, are worried about life stresses or have personal knowledge of heart disease in their own family or in other people.

Diagnosis was easier and clear for subjects presenting with palpitations [21], where the link between anxiety and pronounced awareness of rhythm is often clearer, than for subjects presenting with chest pain which is more complex and clinically more difficult to establish. Although it arouses from a different etiology, there were significant similarities between cardiac and non-cardiac groups.

The findings of our research solidify our earlier belief that it is hard to predict symptomatic outcome at first visit to the outpatient, cardiology and even the medical departments but still primary suspected diagnoses were reached every time.

Subjects experiencing functional somatic symptoms were often insistent upon their belief that they have a cardiac issue and negative reassurance by a doctor alone never sufficed to satisfy them and an ECG was essential at convincing them that their belief is false. The content of this reassurance even after a clear ECG and the way it is presented were crucial in deciding whether the patient returns satisfied or not. Those who continue to experience symptoms say that they want an explanation which reassures them that they do not have a serious cardiac problem, and advice about how to return to a full life.

Literature is full of evidence that suggests that patients may benefit from specific treatments, such as referral to a gastroenterologist or antidepressant drugs. Luckily, all patients complaining of chest pain that is provably non-cardiac and palpitations that are provably benign are then referred to the medicine department for further evaluation and a diagnosed is reached to the subjects' satisfaction. Efforts are also directed to correcting patients' misunderstanding of their symptoms so that the treatment given is well received.

CONCLUSION:

The results show that a majority of the patients referred to the cardiology department did not eventually have a cardiac issue and consequently add to the patient load presenting at the department. The non-cardiac patients do pre-occupy the hospital staff and add to the delay in health care received by genuinely cardiac patients. The non-cardiac patients (ones with other major physical diagnoses) also suffer due to patients with functional symptoms

owing to stress and anxiety. A mechanism needs to be implemented to make this process efficient.
Furthermore the concept of considering non-cardiac chest pain and benign palpitations as less important and taking them less seriously should be shunned. Even though these complaints have a lesser mortality but a morbidity that matches its counterpart. Patients experiencing the symptoms regard their pain as very important and a physician should give them their due importance by treating them just as urgently as any other disease. Effective methods of pain relief too should be available at hand for the physician so as to give the patient instant relief.

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