

Evaluation of Patients with Palpitation

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Abstract

Background: palpitation is an awareness of the heart beat. The pattern of palpitations especially when correlated to the pulse may help narrow the differential Diagnosis: rapid, regular palpitations are noted with supraventricular tachycardia or ventricular tachycardia; rapid, irregular palpitations are noted with a trial fibrillation; and “skipped beats” are noted with premature atria or ventricular contractions.

Objective : the aim of this study to determine the causes of palpitation in 200 patients seeking medical advice in baquba teaching hospital –out patient consultation clinic.

Patient and Methods: 200patients presented with palpitation at baquba teaching hospital – out patient consultation clinic were considered for this study 85 male(42.5) and 115female(57.5), full history taking, physical examination with simple available investigation and psychiatric screening done for them.

Results: A cause of palpitation was determined in 85% of patients. The causes was cardiac in 40%, psychiatric causes in30%, miscellaneous in 15% and unknown causes in 15%.

Key words:evaluation,patient,palpitation

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Introduction

palpitation refers to an unusual awareness of the heart beat[1,2].or subjective sensation of the heart beating[3,4]. The symptom described by the patient as bounding ,fluttering ,flopping or skipping may caused by variety of disorders ranging from life threatening condition such ventricular tachycardia[5,6]to various psychiatric illnesses as anxiety and panic disorder [7], the pattern of palpitations, especially when correlated to the pulse, may help narrow the differential diagnosis; rapid, regular palpitations are noted with supraventricular tachycardia or ventricular tachycardia.; rapid, irregular palpitations are noted with atrial fibrillation[8]; and “skipped beats” are noted with premature atrial or ventricular contractions [1,5]. The common cause of *palpitation* is cardiac causes40-50% of

causes these include premature atrial and ventricular contractions, supraventricular and ventricular arrhythmias, atrial fibrillation , mitral valve rolapsed, aortic regurgitation, and atrial myxoma. Intermittent palpitations are commonly caused by premature atrial or ventricular contractions, other causes: psychiatric causes of palpitations include panic attack or disorder, anxiety states, and somatization, alone or in combination. Patients with psychiatric causes of palpitations more commonly report a longer duration of the sensation (>15 min) and other accompanying symptoms than do patients with other causes [1,7].

Miscellaneous causes either by increase hyper dynamic cardiovascular states caused by catecholaminergic stimulation from exercise, stress, or pheochromocytoma or caused by increase cardiac contractility by

(tobacco, caffeine, aminophylline, atropine, thyroxin, cocaine, and amphetamines, can cause palpitations. And unknown causes [1].

Patient and Methods

Across sectional study was done in out patient's consultation clinic at baquba teaching hospital during period february2010 –july2011.

200patients were included in this study, those patients attending outpatient consultation clinic complaining from palpitation were enrolled in this study.

All patients were assessed according to questionnaire from which information were obtained; a full medical history , complete physical examination and the following investigation were arranged: ECG, and Echocardiograph if the diagnosis was still unknown ,laboratory tests including Fasting blood sugar, Random blood sugar, hemoglobin ,blood urea and electrolytes were done. If the diagnosis was still unknown the thyroid function test were done (normal level T3:0.92-4.78nmol/l) ,T4:58-140nmol/l ,TSH:0.5-4.7mu/l)[9] .

If the diagnosis was still unknown then we evaluated the patient for generalized anxiety disorder, panic disorder and somatization disorder. This was done by the application of the criteria of each of these psychiatric illnesses as mentioned in the (ICD-10) [10].

The diagnostic criteria that we applied in this study are as fallowing [10, 11]

1-somatization disorder: a definitive diagnosis requires the presence of all the following:

a-at least 2 years of multiple and variable physical symptoms for which no physical explanation has been found.

b-persistent refusal to accept the advice or reassurance of several doctors that there's no physical explanation for the symptoms.

c-some degree of impairment of social and family functioning attributable to the nature of symptoms and resulting behavior.

2-generalised anxiety disorder: the patient usually have primary symptoms of anxiety most days for several weeks and some time several months; the symptom usually involve elements of:

a-apprehension (worries about future misfortune, falling, on edge,, difficulty in concentrating ,etc).

b-motor tension (restless, fidgeting, tension, headaches, trembling, inability to relax).

3-panic disorder (episodic paroxysmal anxiety): the essential features are recurrent attach of sever anxiety (panic) which are not restricted to any particular situation or set of circumstance and which are not predictable Panic disorder defined as 4 or more panic attach in one month period.

Diagnostic criteria; in this classification a panic attach is characterized the abrupt attach of apprehension or fear accompanied by symptom such as dyspnae, palpitation, chest discomfort, dizziness, feeling of un reality and fear of dying.

So for definitive diagnosis, several attach of autonomic anxiety within period of 1 month a-in circumstance where there's no objective danger.

b-without being confined to known or predictable situations.

c-with comparative freedom from anxiety symptom between attach.

4-miscellaneous causes:

Medication: palpitation occurring with temporal relationship to the use of medications such as sympathemetic agents, vasodilators, anticholenergic agent or during withdrawal from b-blockers is well recognized so criteria for diagnosis [11, 12].

A-palpitation following a temporal sequence after the medication was introduced.

B-resolving after withdrawal of medication.

c-having no other etiological factor.

Palpitation related to use of caffeine [12]

-palpitation temporary related to caffeine is usually of more than 4 cups of coffee per day;

-with resolution after discontinuation of caffeine.

-no other apparent etiology.

Palpitation related to use of nicotine [13]

- Palpitation temporally related to nicotine product use with resolution after cessation
- no other apparent etiology.

Results

this study was conducted on 200 patients presented with palpitation 85 male (42.5%) and 115 female (57.5%), the age ranging between 15-72 y.

Table 1: show the main causes of palpitation was found in 85% of patients, 40% of cases were cardiac causes, 30% of patient had psychiatric etiology, 15% were miscellaneous causes and 15% were unknown.

Table 2: show the specific etiology of palpitation from 40% of cardiac causes the

common cardiac causes is atrial fibrillation (14%) then supraventricular tachycardia (7%), mitral valve prolapse (7%), premature ventricular ectopic (8%), premature atrial ectopic (3%), and ventricular tachycardia (1%).

From the 30% of psychiatric etiology: panic anxiety represents 22% and anxiety disorder 8%.

The common miscellaneous causes is medication 6%, thyrotoxicosis 5%, anemia 3%, coffin 1%.

Table 3 and table 4: Show the incidence of palpitation in male & female. Cardiac causes of palpitation more common in male (55.16%) than female (44.96%), except mitral valve prolapsed more common in female than male while other causes of palpitation including psychiatric, miscellaneous and unknown causes of palpitation more common in female than male (60.3%, 60%, 66% respectively).

Table(1): Show the main causes of palpitation.

Etiology	No.	Percentage (%)
cardiac causes	80	40%
Psychiatric	60	30%
Miscellaneous	30	15%
Unknown	30	15%
Total	200	100%

Table (2): Show the specific etiology of palpitation.

Main specific causes of palpitation	No.	Percentage (%)
1- cardiac : 40%		
AF (a trial fibrillation)	28	14%
SVT (supraventricular tachycardia)	14	7%
VE(ventricular tachycardia)	16	8%
MVP(mitral valve prolapse)	14	7%
VT (ventricular tachycardia)	2	1%
AE (atrial ectopic)	6	3%
2-Psychiatric (30%)		
Panic anxiety	44	22%
Anxiety disorder	16	8%
3-Miscellaneous (15%)		
Medication	12	6%
Throtoxicosis	10	5%
Anemia	6	3%
Coffin and nicotine	2	1%
4-Unknown	30	15%
Total	200	100%

Table (3): Show the incidence of causes of palpitation in male and female.

Causes of palpitation	Percentage in male	Percentage in female
1- cardiac : 40%		
AF (atrial fibrillation)	61%	39%
SVT (supraventricular tachycardia)	58%	42%
VT (ventricular tachycardia)	62%	38%
MVP(mitral valve prolapse)	32%	68%
VT (ventricular tachycardia)	56%	44%
AE (atrial ectopic)	62%	38%
2-Psychiatric (30%)		
Panic anxiety	40%	59.5%
Anxiety disorder	39%	61%
3-Miscellaneous (15%)		
Medication	37%	63%
Anemia	40%	60%
Coffin and nicotine	52%	48%
100%	55.16%	44.48%

Table (4): Show the incidence of palpitation male and female.

Causes	Incidence in male	Incidence in female
Cardiac	55.16%	44.48%
Psychiatric	39.7%	60.3%
Miscellaneous	40%	60%
Unknown	55 %	45%

Discussion

200 patient were include in our study, 115 female and 85 male; female: male ratio 1.35:1.

In my study common cause the of palpitation is cardiac causes (40%) then psychiatric then miscellaneous causes then unknown causes (30%, 15%, 15% respectively),

Which is compatible with study done by Josef loscalzo . Josef loscalzo study show the cardiac causes is amain causes of palpitation(43%) then psychiatric (31%)then miscellaneous(10%) then unknown causes (16%) [1].

Also my study which is compatible with study done by m.y.abdolrazaq; show incidence of cardiac causes of palpitation(49%) then psychiatric (20%)then miscellaneous(12%) then unknown causes (19%)[11].

My study show cardiac causes of palpitation more common in male than female, while other causes is more in female than male which is compatible with m. y. abdolrazaq study [11].

Our study show coffins & nicotine is more in male than female which is not compatible with those study mensioned above [11].

my study show 30%of palpitation are psychiatric in etiology while a study by AJ Barsky,s study [14] represented (29%) and m.y.a.razaq study show psychiatric causes (20%) these mild change in incidence which is related to change in general condition (psychological, social economical and other bad general condition were happened at the last few year in our city (diyala city) and those study in others countries.

Conclusion

The causes of palpitation can often be diagnosed with simple initial evaluation(history ,physical examination ,ECG ,echocardiography) cardiac causes of palpitation accounts for the etiology is nearly one half of all the patients &the psychiatric

cause accounts for the etiology in nearly one third of the patients.

Recommendation

palpitation one of a common disease so by full history physical investigation and simple investigation(ECG ,Echocardiography and other selective laboratory tests we can identify the causes of palpitation more than half of cases the remaining we concentrate on the screening of psychological disorders to detects the psychiatric causes of palpitation.

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