Prevalence of Anxiety and Depression among Acute Coronary Syndrome Patients

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ABSTRACT

Background: Coronary artery disease (CAD) is one of the major causes of morbidity and mortality worldwide. Acute coronary syndrome (ACS) is the commonest cardiovascular emergency encountered in hospitals. In addition to other major risk factors, psychosocial factors, mainly anxiety and depression are independently related to ACS.
Purpose: The aim of this study was to assess the magnitude of the burden of anxiety and depression among ACS patients in comparison to other variables.
Patients and Methods: A convenient sample of one hundred patients with ACS at Cairo University hospitals were enrolled in this study. All patients undertook the Beck anxiety and depression inventory screening tool.
Results: The mean age of the study population was 58.09 (+/-) 8.60 years. The mean scores of anxiety and depression were 22.85 and 20.20 respectively. The prevalence of moderate degrees of anxiety and depression were 43% and 29% respectively. Mean anxiety and depression scores among female patients were 28.57 and 24.86 respectively which are much higher than among male patients 20.63 and 18.39 (p=0.002, 0.006). There was a positive correlation between anxiety and depression (correlation coefficient= 0.618, p<0.001). Anxiety levels were higher among Dyslipidemic patients (p=0.002) and Depression levels were higher among Hypertensive patients (p=0.014). Anxiety and Depression scores did not vary significantly among different ACS types and were not related to type of angina or severity of coronary lesions.
Conclusion: The occurrence of an episode of Acute Coronary syndrome is closely tied with the presence of heightened levels of anxiety and depression as a triggering factor over the few weeks preceding the event. Both conditions tend to coexist and interact together. Female sex is an independent predictor and risk factor for Anxiety and Depression. Dyslipidemia is an independent risk factor and predictor for Anxiety as Hypertension is for Depression.
Keywords: Acute coronary syndrome, Anxiety, Depression.

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INTRODUCTION , BACKGROUND AND AIM OF WORK

- Coronary Artery Disease (CAD) is a significant health, social and economic problem and one of the major causes of both morbidity and mortality worldwide.
- Acute Coronary Syndrome (ACS) is the most common cardiovascular emergency encountered in hospitals.
- It is stressed that psychosocial risk factors play a significant role in the pathogenesis of CAD and are independent risk factors for ACS in addition to other major risk factors.
- Patients with ACS usually report a higher subjective mental stress during two to four weeks preceding the acute cardiac event such as sleep disturbances, extreme physical exertion, stress at work and at home, financial burdens, major life events,...etc.
- Anxiety & Depression are the commonest two psychosocial disorders among ACS patients.
- The aim of this study is the evaluation of the prevalence of anxiety and depression among patients with acute coronary syndrome and their relationship with other conventional cardiovascular risk factors.

Patients AND METHODS

This is an observational, descriptive and cross-sectional study. It included a “convenience” sample of 100 patients diagnosed with acute coronary syndrome presenting to any of the Cairo university hospitals during the time period from September, 2018 to February, 2019 (6 months).

Patients who are not willing to participate in the study, Patients with disturbed consciousness level or those who are sedated, intubated and mechanically ventilated and those already on regular psychiatric medications (eg, antidepressants, anxiolytics or antipsychotics) were excluded from the study.

In addition to the standard care of acute coronary syndrome, (e.g ; ECG, Echocardiography, Lab investigations and Coronary angiography), all 100 patients were assessed using the Beck anxiety and Beck depression inventories.

RESULTS

The mean age of the study population was 58.09 (+/-) 8.60 years. The mean scores of anxiety and depression were 22.85 and 20.20 respectively. The prevalence of moderate degrees of anxiety and depression were 43% and 29% respectively. Mean anxiety and depression scores among female patients were 28.57 and 24.86 respectively which are much higher than among male patients 20.63 and 18.39 (p=0.002, 0.006). There was a positive correlation between anxiety and depression (correlation coefficient= 0.618, p<0.001). Anxiety levels were higher among Dyslipidemic patients (p=0.002) and Depression levels were higher among Hypertensive patients (p=0.014). Anxiety and Depression scores did not vary significantly among different ACS types and were not related to type of angina or severity of coronary lesions.

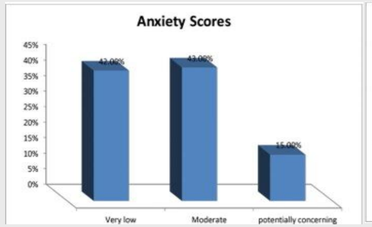

Chart 1. Baseline Anxiety scores

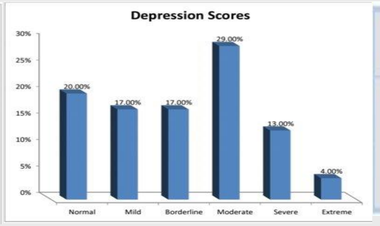

Chart 2. Baseline Depression scores

		Depression Score
Anxiety Score	r	0.618
	P value	< 0.001

Table1. Correlation between Anxiety and Depression scores

	ACS-type		
	Unstable Angina	combined STEMI +NSTEMI	P value
	Median (Range)	Median (Range)	
Depression Score	21 (0-41)	18 (2-46)	0.214
Anxiety Score	24 (0-61)	23 (0-49)	0.308

Table 2. Correlation between Anxiety/Depression and ACS type .

	Gender		
	Male	Female	P value
	Median (Range)	Median (Range)	
Depression Score	18 (0-44)	22 (3-46)	0.006
Anxiety Score	19.5 (0-61)	27.5 (2-49)	0.002

Table 3. Correlation between gender and Anxiety/Depression.

DISCUSSION

To the best of our knowledge, this is the first study of its kind conducted in the Egyptian community to study the prevalence of anxiety and depression among ACS patients and their relationship with other cardiac risk factors. We compared the findings and results ofour study with those of other studies in other communities..
In other studies, the prevalence of anxiety among ACS patients was found to be 50% and that of depression 25%. This greatly matches with our results where most of the anxiety and depression scores assessed suggested the prevalence of moderate degrees of both conditions, 43% and 29% respectively.
Female sex was found to be an independent predictor and risk factor for both Anxiety and Depression in harmony with other studies.
Anxiety and depression usually coexist together with a strong positive correlation coefficient and the level of any condition is not related to the ACS severity as consolidated in other studies.

CONCLUSION AND RECOMMENDATIONS

- The prevalence of moderate to severe degrees of anxiety and depression among ACS patients is 58% and 46% respectively.
- Anxiety and Depression usually coexist and their levels are higher among female patients.
- Dyslipiedemia is an independent risk factor for anxiety as is hypertension for Depression among ACS patients.
- Anxiety and Depression levels are neither related to the severity of coronary lesions nor to the type of ACS or angina.
- The screening of ACS patients for anxiety and depression via a validated screening tool is simple, easy, available and affordable.
- Identifying potential candidate patients with moderate to severe levels of anxiety and depression helps in their early referral to proper psychiatric consultation for the possibility of benefiting from the available pharmaco-psychotherapy regimens.

LIMITATIONS

- Small convenience sampleof patients (100).
- The study design is “cross-sectional”.
- Social barriers of fear of stigmatization

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