CO-MORBIDITIES IN HYPERTENSION

FROM A SYMPOSY TO MYOCARDITIS - AN UNUSUAL MANIFESTATION OF MYOCARDITIS IN OBESE PATIENT WITH HYPERTENSION AND PARANOIDAL SCHIZOPHRENIA

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Objective: The case report presents a 50-year-old obese patient with a history of paranoid schizophrenia, sinus tachycardia and hypertension which was admitted to the Department of Internal Medicine and Hypertension after fainting the day before. In the admission the patient suffers from a chest pain, dizziness, and abdominal pain. The physical examination revealed: BP 161/104mmHg, HR 120/min, SatO2 94%, overdeveloped fatty tissue and pain in the left chest and abdominal area after a collapse. Laboratory tests showed increased inflammation and cardiac parameters as well as extremely high concentration of TCA-s (Tricyclic antidepressants). The ECG and ECHO were carried out, the former showed ST elevations in ECG leads II, III, aVF, V4-V6, the latter revealed dilation of the right ventricle, left ventricular hypertrophy and lower ejection fraction, EF = 48%. Hypotensive treatment was implemented resulting lowering blood pressure. However, the patient’s condition did not get better. Stabbing and burning chest pain persisted. Considering a clinical picture, contrast-MRI was performed showing LGE (late gadolinium enhancement) on the lateral-inferior part of the left ventricle wall characteristic for myocarditis (MC).

The objective of this case report is to highlight a possibility of myocarditis when there are symptoms responding to other heart diseases, atypical for MC and the role of detailed diagnostic process and holistic perspective.

Design and method: Case report presentation of the patient admitted to the hospital due to the collapse episode the day before. Symptoms and additional test analysis and making the final diagnosis.

Results: Initial diagnostic tests were negative or inconclusive until heart contrast-MRI was performed revealing - LGE foci in the left ventricle wall corresponding to the area of inflammatory lesion of the lateral-inferior part of the left ventricle wall.

Conclusions: Although, myocarditis is a rare finding, more frequent in younger population, it is associated with significant complications and mortality thus early diagnosis can prevent critical condition. In presented case, the difficulty in making a final diagnosis of myocarditis was affected by predominant cardiac attack symptoms. Moreover, MC could be caused by TCA which high concentration was found in the patient’s blood.

ASSOCIATION OF DEPRESSION AND ANXIETY WITH HYPERTENSIVE CRISIS. A CROSS SECTIONAL STUDY FROM A HOSPITAL SETTING IN KARACHI, PAKISTAN

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Objective: Hypertension, a leading risk factor for cardiovascular death has been closely linked with depression and anxiety. The aim of this study was to examine the association of depression or anxiety with hypertensive crisis in patients from a hospital setting and also see if the association is affected by age groups or gender.

Design and method: This cross-sectional study was conducted between July 2019 and March 2022 on 290 patients admitted at the Aga Khan University Hospital (AKUH). All adult patients of more than 18 years of age admitted with uncontrolled hypertension with systolic blood pressure of > 140 and diastolic blood pressure > 90 admitted through emergency were included. Hypertensive crisis was defined as systolic blood pressure more than 180mm Hg or a diastolic blood pressure more than or equal to 120mm Hg, with or without accompanying end organ damage. Depression and Anxiety were evaluated using the Hospital Anxiety and Depression Scale (HADS), with a cut-off score of greater than 8.

Results: Of the patients identified with uncontrolled hypertension, a total of 140 (48.3 percent) of the patients presented with a hypertensive crisis, while 150 (51.7 percent) did not have a hypertensive crisis at presentation. In the hypertensive crisis group, 60 (43 percent) had HADS scores consistent with depression, while 83 (59.3 percent) had HADS scores consistent with anxiety. In patients with hypertensive crisis, HADS depression and anxiety were most prevalent in the 61-75 age group (39.7 percent). In the comparison of gender, it was found that males and females with hypertensive crisis had an almost equal prevalence of anxiety (49.4 percent in males versus 50.6 percent in females). A slightly higher prevalence of depression was seen in females with hypertensive crises when compared to males.

Conclusions: We found no association between depression or anxiety with hypertensive crisis, and the association is not affected by age group or gender. However, do note that half of the patients with hypertensive crises had depression or anxiety. Future large multicentered studies are required to study the link in greater detail.

SEX DIFFERENCES IN THE INCIDENCE OF ARTERIAL HYPERTENSION FOLLOWING HEART TRANSPLANTATION

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Objective: Arterial hypertension (AH) is a common complication in heart transplant (HTX) recipients affecting 50-80% of patients (pts). The aim of our study was to evaluate sex differences in the incidence of AH in HTX pts.

Design and method: We retrospectively analyzed pts who underwent HTX in our center between 01/2010 and 12/2020.

Results: We enrolled a total of 164 pts with a survival of more than 1 year after HTX. The study group included 126 males, average age of 50.5 ± 10.8 years, and 38 females average age of 46.4 ± 10.2 years. All pts after HTX received standard immunosuppressive treatment according to the protocol of our center, including calcineurin inhibitors. Pre-transplant AH was present in 35% (n = 58 pts). Pre-transplant - AH was more prevalent in males 41% (n = 52 pts) compared to females 16% (n = 6 pts). Prevalence of AH after HTX was 68% (n = 112 pts), more frequent in males 71% (n = 90) vs females 58% (n = 22). The average BP in the medical record 1 year after HTX was 136 ± 14/84 ± 10 mmHg. All 112 pts with post-transplant AH were treated with AH treatment: 52% (n = 58) were treated with monotherapy, 35% (n = 39) with two-drug combinations, 10% (n = 11) with three-drug combinations, and 3% (n = 4) with four-drug combinations. The most frequently used AH drugs were calcium channel blockers in 54% (n = 60) pts, followed by ACE inhibitors in 46% (n = 52) and beta-blockers in 34% (n = 38). As independent risk factors for developing post-transplant AH in both groups were identified presence pre- transplant AH (RR 1.5; CI 2.27 – 13.17), hypertriglyceridemia (MC) (RR 1.6; CI 1.75 – 16.24) and pre-transplant ischemic cardiomyopathy (RR 1.4; CI 1.41 – 7.68).

Conclusions: AH 1 year after HTX is a common complication. In our group of pts affected 68% of pts. We observed a greater increase in the incidence of post-transplant vs pre-transplant AH in females pts. Patients with pre-transplant AH, elevated triacylglycerides, and ischemic cardiomyopathy, are at high risk to develop post-transplant AH. Therefore they require more consistent follow-up even in the early period after HTX.

PROGRESSION OF HYPERTENSION-MEDIATED ORGAN DAMAGE IN PATIENTS WITH AND WITHOUT NONALCOHOLIC FATTY LIVER DISEASE

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Objective: Nonalcoholic fatty liver disease (NAFLD) is the main cause of chronic liver disease and is associated with an increased risk of cardiovascular death. Fatty liver index (FLI) is a validated marker of NAFLD and can be used as a screening measure of hepatic steatosis. The purpose of the study was to compare the progression of hypertension-mediated organ damage (HMOD) in hypertensive patients with and without NAFLD.

Design and method: Hypertensive patients (n = 60) without a history of cardiovascular disease participated in the study (mean age, 52 years; males, 55%; baseline clinic BP, 145/92 mmHg) and were followed for one year. In the baseline