PERIPATUM CARDIOMYOPATHY ; FIVE YEARS STUDY IN DIWANIYAH TEACHING HOSPITAL

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ABSTRACT

Objective: Astudy was carried out to verify peri partum cardiomyopathy (PPCMP) frequency among other cardiomyopathy (CM)

Patients and methods : From April 2001 to April 2005 , out and in patients (98) patients with clinically unexplained congestive heart failure had been subjected to careful echocardiographic study.

Results : it was found that (13.2%) of dilated CM studied had PPCM. All the 13 patients of PPCM were multiparous ; had heart failure in stage 111-1V; and they were anemic and underweight.

INTRODUTION

Dilated CM is characterized by dilatation and impaired contraction of the left (and sometimes the right) ventricle it involves the myocardium primarily and is not the result of a known cause [1] .

The WHO classified the CM into specific; when there is a known or associated systemic disease, and nonspecific or idiopathic CM when no disease present[1] .

A number of classification schemes have been adopted dividing the CM into five types; Dilated, Hpertrophic, Arrhythmogenic RV dysplasia, Oblterative, and Restrictive. Dilated CM is characterized by impaired systolic function and dilatation of one or both ventricles. PPCM is a type of dilated CM ; it is a rare, life threating disease of unknown cause and occurs in the peripartum period in previously healthy women[4,5]. PPCM is not distinguishable in its clinical features from idiopathic dilated PCMP,although in some series active myocarditis has been found more frequently[3]. The patient who develops PPCM is typically multiparous over the age of 30 years[1]. The risk factors for the development of PPCM include; multiparity, advanced maternal age, multifetal pregnancy, pre-eclampsia and gestational hypertion[5].

The objectives of the study were:

- To verify PPCM frequency among other CM, and the symptoms suggestive of the condition among the risk groups ladies.
- To plan recommendations for early diagnosis of this life threatening disease.

PATIENT AND METHODS

From April 2001 to April 2005, out and inpatient totel (98) patients with clinically unexplained congestive heart failure had been subjected to careful echocardiographic study. After detailed history thorough clinical examination, the following investigations were requested chest x-ray, blood sugar, blood urea,ECG,and ECHO. PPCM cases were defined on the basis of 4 criteria adopted from work by Derrakis et al, :

1.Development of cardiac failure in last the month of pregnancy or within 5 months of delivery.

2. Absence of identifiable cause for the cardiac failure.

3. Absence of recognizable heart disease prior to last month of pregnancy.

4.Additional left ventricular systolic dysfunction demonstrated by classic echocardiographic criteria such as depressed shortening fraction or ejection fraction[5].

M-mode and 2-D echocardiograms with 2-4 MHZ sector probe-using Kretz technique volusion 530-D soft ware version 04 was used.

The following parameters were measured: left atrium (LAD), aortic root (AOD), left ventricular diastole(LVDD),left ventricular systole dimention (LVSD), right ventricular dimention(RVD) and Ejection fraction (EF),(Table-1).

All measurements were made according to the recommendations of the American society of Echocardiography.

They were studied in a descriptive method; stressing on the age , onset of the symptoms, parity, nutritional status , any history of systemic disease and the response to conventional therapy .Review of literature was carried out.

Table 1. The echocardiographic findings of studied patients

LA(mm)	**38.8_ + 9.9**	**LVSD(mm)**	**50.5 +_7.9**
AO(mm)	26.5+_5.9	EF(%)	**30.8+_10.15**
LVDD(mm)	**60.1+_6.7**	**RV(mm)**	**40.3+_7.7**

mm : millimeter

RESULTS

Thirteen out of 98 cases diagnosed to have dilated CM were of peripartum type giving an incidence of(13.2%).

All the 13 patients of PPCM were multiparous with mean parity of 6.7.

All 13 patients had heart failure shortly after delivery with duration range from few days to 5 months.

All the cases were in stage 111-1V heart failure according to New York heart association classification.

All the pts were anemic and underweight. One patient was suffering from IDDM and one patient was suffering non-IDDM.

An interesting observation. Two pts developed CVA and their ECHO examination showed evidence of intracardiac thrombus.

5(38.4%) pts showed poor response to the antifailure therapy , 4(30.7%) pts died within few months of diagnosis, 4(30.7%) pts showed partial to good response to antifailure,(Table-2)

Table2. Patients characteristics outcome.

Case	Age	Parity	Onset of symtoms	Systemic diease	Class of HF	Respose To treat	Out come
1	33	7	3 m	---	1V	Part.	**CVA**
2	43	9	15d.	DM	111	Poor	**Died**
3	35	8	4 m	---	111	Part.	**Good**
4	39	5	6 m	---	1V	Part.	**Good**
5	25	6	9 d	---	111	Part.	**Good**
6	43	10	14 d	---	1V	Poor	**Died**
7	35	5	6 d	IDDM	1V	Part.	**Died**
8	32	8	10 d	---	111	Part.	**Good**
9	39	9	3 m	---	1V	Poor	**CVA**
10	37	4	15 d	---	111	Part.	**Good**
11	44	7	2 m	---	1V	Poor	**Died**
12	31	5	2o d	---	1V	Part	**Good**
13	**29**	**6**	**2 m**	**---**	**111**	**Part**	**Good**

DISCUSSION

PPCM is a rare lethal cardiac failure[5], the clinical differentiation of dyspnoea from symptoms of pregnancy can sometimes be difficult[2].

In Zimbabwe a retrospective study; out of 245 pts with congestive cardiomyopathy 65 cases were proved to PPCM giving 37.6% our figure is quite lower and could be explained on low index of suspicion and the small figure studied.

A study in Taiwan during a 10 year period, out of 36882 women delivered only 6 cases were diagnosed to have PPCM with an incidence of 1in 6000 indicating how rare it is[7] .

In Dakar astudy[8] 30 out of 1200 deliveries developed PPCM which is arelatively higher than China study; this can be explained on a racial factor. In Durban (South Africa) astudy revealed a higher incidence of PPCM in local Africans population 1:1000 deliveries, so Africans descent considered a risk factor for PPCM[9].

Our pts with PPCM were multiparous , high parity and high mean age all these are recognized risk factor for PPCM[1,5,8,9]. All pts presented with symptoms of heart failure of variable duration ranging from days-months and on clinical criteria they were in advanced failure of class 111-1V, indicating either unawareness of treating doctors or PPCM is presenting with rather acute severe symptoms this was consistent with other studies [7,8].

All cases presented after delivery, this was in consistent with other studies [1].

All cases in our study were of subnutritional status and are of low socioeconomic status, this could be a co-risk factor in the pathogenesis of PPCM in our locality and that necessitates an increase the index of suspicion among poor ladies ,.

The response of pts studied to medical treatment was partial to poor in most cases, with high mortality rate (40%). Astudy in Johannesburg[10] evaluating the drug treatment in PPCM and assessing circulating level of cytokine and Fas receptors,showed that those with high cytokine and Fas having high mortality and poor response to therapy, but because of a chance of recovery some literatures considerd it of a good prognosis[11].

In conclusion

PPCM is not very rare in our locality ,but for early diagnosis it needs high index of suspicion . Increasing shortness of breath and paroxymal nocturnal dyspnoea are not symptoms of pregnancy ,and pregnant ladies with such symptoms, should be studied carefully . Also this study has rivaled the PPCM is of high morbidity and mortality and shows a poor response to medical therapy. Those who survive should be prevented from further conception. Thus screening high-risk groups with ECHO and close collaboration between cardiologist and obstetrician are essential. In addition to that education and continuous teaching to individuals involved in the antenatal care of pregnant ladies are mandatory.

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