RESULTS

The study population included 50 hypertensive patients 26 males 24 females. They were selected from cardiology department out patient clinic of Benha University hospital from ***(March, 1998, T.IL February 1999).***

- The mean age was 56.17 ± 11.21 years.

The Q.T. interval was measurable in a range of 10-12 leads

The patients were divided into two group each group 25 patients.

Group I: Hypertensive patients who met echo criteria of left ventricular hypertorphy.

Group II: Hypertensive patients without left ventricular hypertorphy.

Table (1): Shows comparison between both groups in clinical criteria.

	Group I (Mean ± SD)	Group II (Mean ± SD)	P-Value
Age (year) (m)	59.08 ± 7.57	54.28 ± 10.96	> 0.05
Height (cm) (m)	164.84 ± 5.75	160.52 ± 10.12	> 0.05
Weight (kg) (m)	69.64 ± 14.17	64.48 ± 11.27	> 0.05
BSA (m^2) (m)	1.79 ± 0.223	1.75 ± 0.162	> 0.05
S.B.P. (mmhg) (m)	164.4 ± 12.27	157 ± 8.30	< 0.05 – S.
D.B.P.(mmHg) (m)	104.4 ± 8.69	98.4 ± 9.26	> 0.05
M.B.P.(mmHg)(m)	120.9 ± 8.12	117.1 ± 5.32	> 0.05
Males (N)	13	13	
Female (N)	12	12	
Smoker (N)	12	11	
Non smoking (N)	13	14	
Diabetic (N)	9	8	
Non diabetic (N)	16	17	

M= mean

N= Number SD= standard deviation.

B.S.A. = Body surface area, S.B.P., systolic blood pressure

D.B.P. = Diastolic blood pressure M.B.P. = Mean blood pressure.

As shown in table (1) comparison between group I & group II in clinical criteria only systolic blood pressure shows a significant relation with left ventricular hypertrophy.

Table (2): Shows comparison both groups in parameters of Q.T. dispersion.

	Group I (Mean ± SD)	Group II (Mean ± SD)	P. Value
Q.T. Max	435.2 ± 38.09	388.8 ± 42.26	< 0.05 s
Q.T. Min.	371.6 ± 36.70	350.1 ± 40.82	> 0.05 – N.S.
Δ Q.T.	63.6 ± 11.86	38.8 ± 7.25	< 0.01 – H.S.
% Δ Q.T.	17.84 ± 3.77	11.20 ± 2.29	< 0.01 – H.S.
Q.T.C. Max	168.02 ± 3.98	416.83 ± 38.70	< 0.05- S
Q.T.C. Min	426.70 ± 30.56	373.12 ± 40.20	> 0.05 – N.S.
Δ Q.T.C.	72.72 ± 19.04	45.35 ± 8.34	< 0.01-H.S.
% Δ Q.T.C.	19.11 ± 4.07	12.23 ± 2.40	< 0.01-H.S.

Q.T. Max = Q.T. – Maximum. Q.T. Min = Q.T.- Minimum.

Δ Q.T. = Q.T. dispersion. % Δ Q.T. = Percent normalized Q.T. dispersion.

Q.T.C. Max = corrected Q.T. Maximum. Q.T.C. Min = Corrected Q.T. minimum.

Δ Q.T.C. = Corrected Q.T. dispersion % Q.T.C. = percent normalized corrected Q.T. dispersion.

As shown in table (II) comparison between both groups in dillerent parameters of Q.T. represented a significant relation between L.V.H. and both Q.T. Max, corrected Q.T. max, also represented, a high significant between L.V.H. and either Q.T. dispersion, percent normalized Q.T. dispersion, corrected Q.T. dispersion and percent normalized corrected Q.T. dispersion.

We reclassfied, the patients according to level of Q.T. dispersion into Group A and B Group A; with Q.T. dispersion > 50 m.s. Included 27 patients **Group B:** with Q.T. dispersion < 50 ms. Included 23 patients

Table (3): show a comparison between both group A and B as regard clinical criteria

	Group A Mean ± SD	Group B Mean ± SD	P-Value
Age (years)	59.44 ± 10.16	52.85 ± 7.50	< 0.05 – S
Height (cm) (m)	163.95 ± 5.63	160.21 ± 9.78	> 0.05
Weight (kg) (m)	68.87 ± 14.53	65.97 ± 10.78	> 0.05
BSA (m^2) (m)	1.76 ± 0.245	1.74 ± 0.185	> 0.05
SBP (mmHg)(m)	162.2 ± 10.89	159.2 ± 10.87	> 0.05
DBP (mmHg) (m)	102.9 ± 8.761	99.2 ± 4.55	> 0.05
M B.P.(mmHg)(m)	122.7 ± 8.84	119.2 ± 5.71	> 0.05
L.V.M. (g) (m)	288.5 ± 90.33	135.7 ± 41.48	< 0.01 – H.S.
L.V.M.I.(g)/m^2	125.0 ± 38.8	79.7 ± 25.5	< 0.01 – H.S.
Males (N)	14	12	
Females (N)	13	11	
Smoker (N)	12	10	
Non smoker (N)	15	13	
Diabetic (N)	10	8	
Non diabetic (N)	17	13	

M= Mean - N= number.
B.S.A. = Body surface area S.B.P. = Systolic blood pressure.
D.B.P. = Diastolic blood pressure M.B.P. = Mean blood pressure.
L.V.M. = Left ventricular mass L.V.M. =Left ventricular mass index.

As shown in Table (3) comparison between Group A,B in clinical criteria represented significant direct relation between Q.T. dispersion and either Age. Left ventricular mass and left ventricular mass index.

Table (4): Shows comparison between male – females, smokers, no smoker, diabetic non diabetic in mean of Q.T. dispersion.

	Δ Q.T. (M ± SD)	P- Value
Male	50.67 ± 14.40	
Females	51.66 ± 17.61	> 0.05 N.S.
Smoker	52.5 ± 15.10	
Non smoker	50.16.7	> 0.05 N.S.
Diabetic	53.33 ± 15.43	
Non diabetic	50.28 ± 16.17	> 0.05 N.S.

As shown in table (4) there was no relation between Q.T. dispersion and sex, smoking, diabetes millets.

Figures of comparisons and correlation's; as shown in (Fig. 3,4,5,6) comparison between both hypertensive groups with and without L.V.H. represent in Q.T. dispersion, percent Q.T. dispersion corrected Q.T. dispersion all show marked increase in hypertensive patients with left ventricular hypertrophy.

As shown in (Fig. 7,8,9,10) correlation between different Q.T. parameters and left ventricular mass represented a direct relationship between left ventricular mass and either Q.T. dispersion, percent Q.T. dispersion corrected Q.T. dispersion and percent corrected Q.T. dispersion.

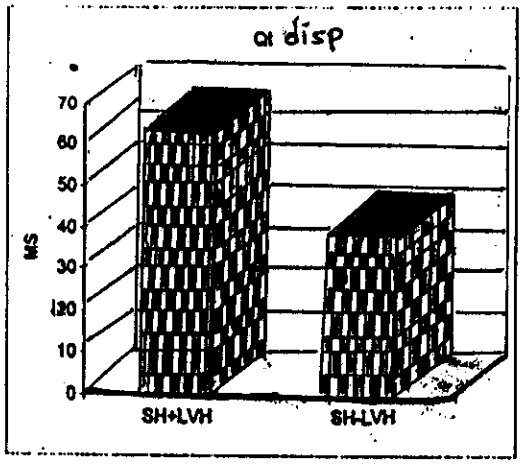

Fig. (3): Comparison of Q.T. dispersion between hypertensive patients with left ventricular hypertorphy (SH + LVH) and hypertensive patients without left ventricular hypertorphy (SH-LVH).

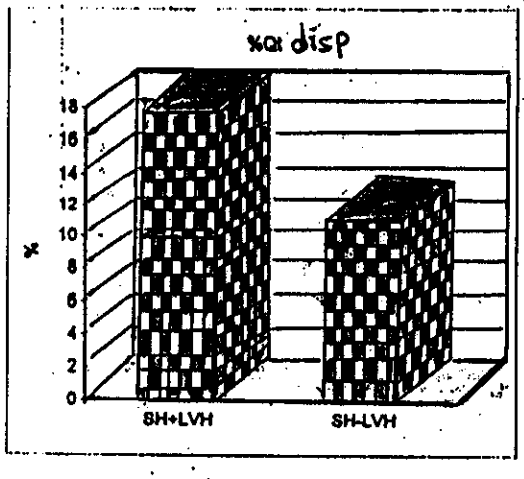

Fig. (4) : comparison of percent normalized Q.T. dispersion between hypertensive patients with left ventricular hypertorphy (SH+LVH) and hypertensive patients without left ventricular hypertrophy (SH-LVH).

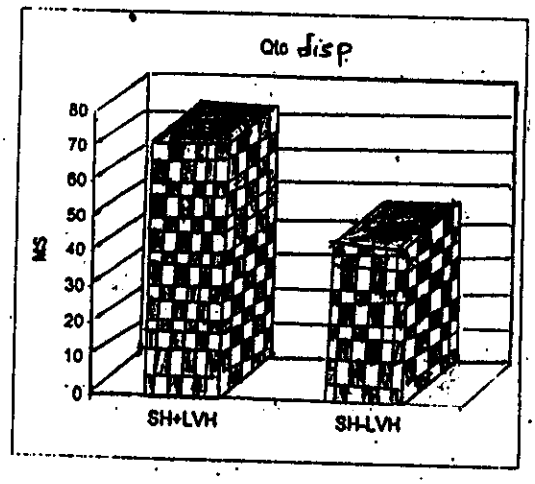

Fig. (5): comparison of corrected Q.T. dispersion between hypertensive patients with and without left ventricular hypertophy.

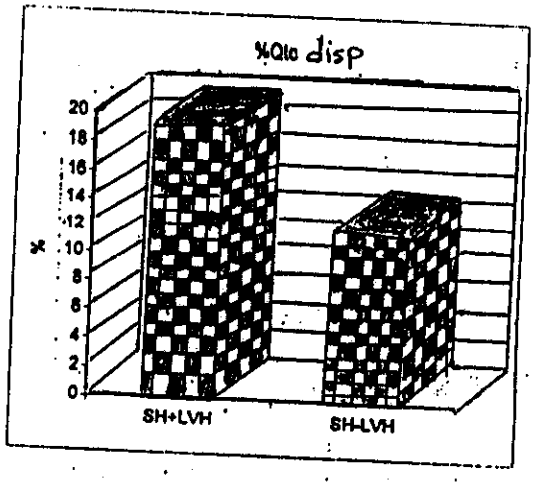

Fig. (6): Comparison of percent normalized corrected Q.T. dispersion between hypertensive patients with and without left ventricular hypertrophy.

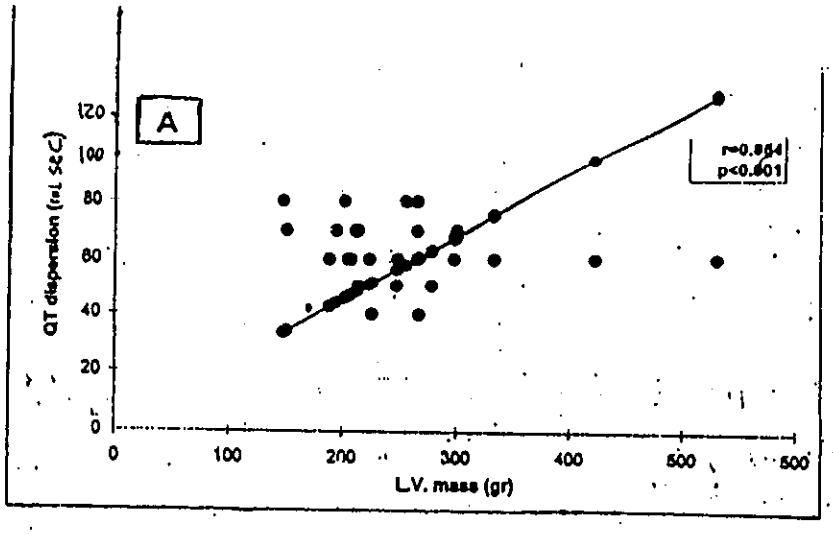

Fig. (7): Correlation between Q.T. dispersion and left ventricular mass.

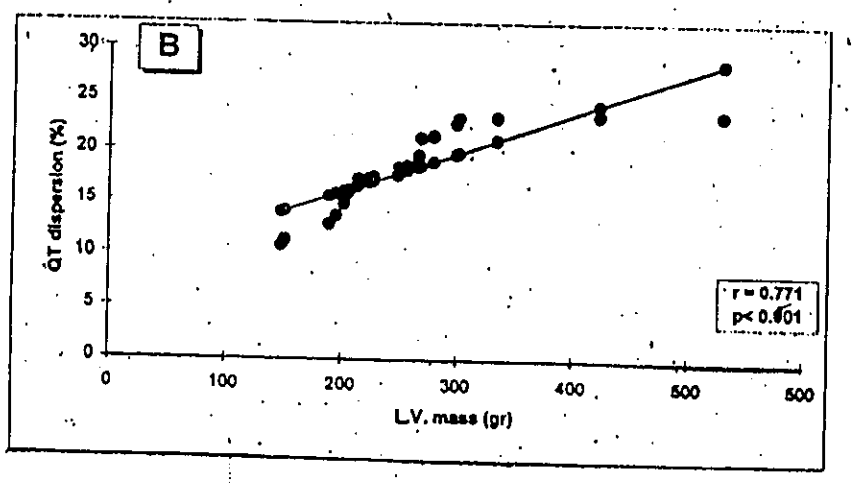

Fig. (8): Correlation between percent normalized Q.T. dispersion and left ventricular mass.

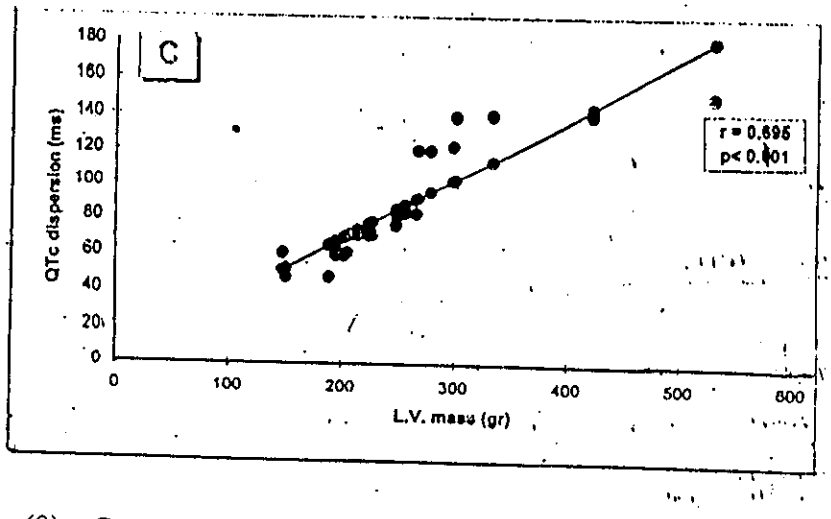

Fig. (9): Correlation between corrected Q.T. dispersion and left ventricular mass.

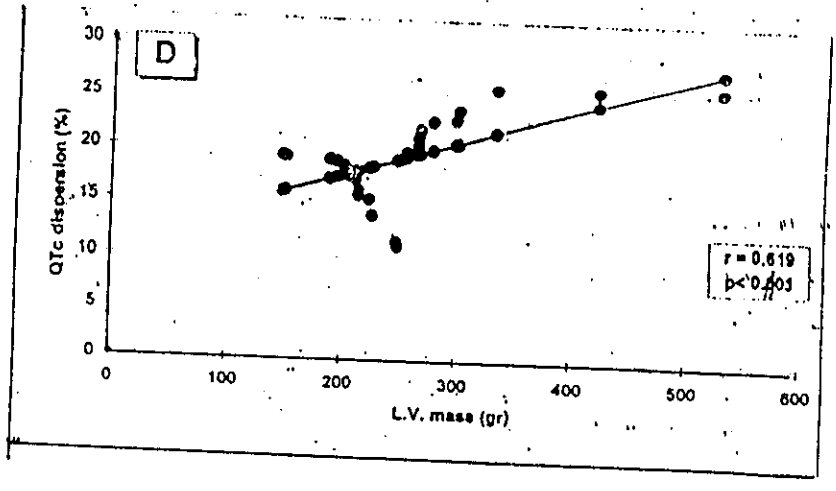

Fig. (10): Correlation between percent normalized corrected Q.T. dispersion and left ventricular mass.