RESULTS

Patients demographics and characteristics:

The study population included 50 patients, 40 males (80%) and 10 females (20%). The mean age, 58.7±10.46 years (range 37-80), 36 patients (72%) had anterior myocardial infarction and 14 patients (28%) had inferior myocardial infarction, 25 control subjects are matched with the patients as regards age and sex.

the QT interval was measurable in 11.38±0.80 leads (range 10-12). The mean QT interval averaged over 12 leads for all patients was 377,16±48.35 (range 292-510) versus in the normal control, the QT interval was measurable in 11.45±0.73 leads (range 10-12). The mean QT interval averaged over 12 leads for all normal controls was 355.24±22.23 (range 318-405).

Group (1) patients who received thromblytic therapy:

Included 25 cases, 20 males (80%) and 5 females (20%). The mean age 54.76±8.15 (range 37-67). Twenty patients (80%) had anterior myocardial infarction and 5 patients (20%) had inferior myocardial infarction.

The QT interval was measurable in 11.36±0.75 (range 10 to 12). The mean QT averaged over 12 leads was 373.64±46.91 (range 316-510) on admission.

Group (2) patients who did not receive streptokinase:

Included 25 patients, 20 males (80%) and 5 females (20%). The mean age 62.64±11.16 (range 42 to 80). Sixteen (64%) had anterior myocardial infarction and 9 patients (36%) had inferior myocardial infarction).

The QT interval was measurable in 11.40±086 (range 10 to 12). The mean QT interval averaged over 12 leads was 360.60±44.52 (range 246 to 441) msec.

Comparison between the patients and normal controls:

The QTd values differed between the patients (133.04±41.61 msec) and normal controls (46.00±16.52 msec). The difference was statistically highly significant (P<0.001).

There was a statistically highly significant difference (P<0.001) in the QTcd values between patients (186.82±106.37 msec) and normal controls (95.20±20.37 msec).

The difference was statistically highly significant (P<0.001) in the QTdR values between patients (17.82±5.99 msec) and contols (7.64±10.19 msec).

Table (3): Comparison between normal controls and patients

	Mean±SD	t	P
QTd patients	133.04±41.61	10.04	P<0.001 (HS)
QTd controls	46.00±16.52		
QTcd patients	186.82±106.37	4.25	P<0.001 (HS)
QTcd controls	95.20±20.37		
QTdR patients	17.82±5.99	5.44	P<0.001 (HS)
QTdR controls	7.64±10.19		

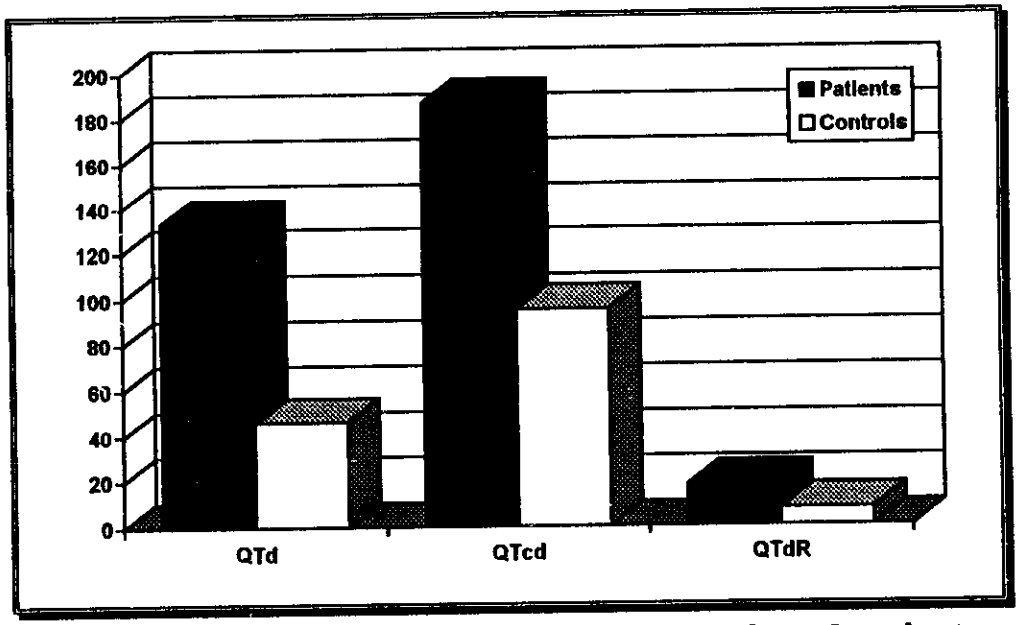

Fig. (2): Comparison between normal controls and patients

In group (1):

There was a statistically highly significant difference in the QTd values between admission (157.88±42.50 msec) and 2 hours post-streptokinase (131.00±37.47 msec) and between admission (157.88±42.50 msec) and predischarge (77.00±22.91 msec).

There was a statistically highly significant difference in the QTcd between admission (223.08±112.09 msec) and 2 hours post-streptokinase (169.92±82.43 msec) (P<0.01) and between admission (223.08±112.09 msec) and predischarge (94.20±27.64 msec).

There was a statistically highly significant difference in the QTdR between admission (20.37±6.54 msec) and two hours post-streptokinase (16.71±5.64 msec) (P<0.01) and between admission 20.37±6.54 msec) and predischarge (10.16±3.77).

Table (4): Comparison between QTd, QTcd and QTdR on admission, 2 hours post-streptokinase and predischarge

	Mean±SD	t	P
QTd on admission	157.88±42.50	5.13	P<0.01 (HS)
QTd 2 h. post SK	131.00±37.47		
QTd on admission	157.88±42.50	13.12	P<0.01 (HS)
QTd on predischarge	77.00±22.91		
QTcd on admission	223.08±112.09	5.92	P<0.01 (HS)
QTcd 2 h. post SK	169.92±82.43		
QTcd on admission	223.08±112.09	6.20	P<0.01 (HS)
QTcd on predischarge	94.20±27.64		
QTdR on admission	20.37±6.54	4.83	P<0.01 (HS)
QTdR 2 h. post SK	16.71±5.64		
QRdR on admission	20.37±6.54	11.09	P<0.01 (HS)
QTdR on predischarge	10.16±3.77		

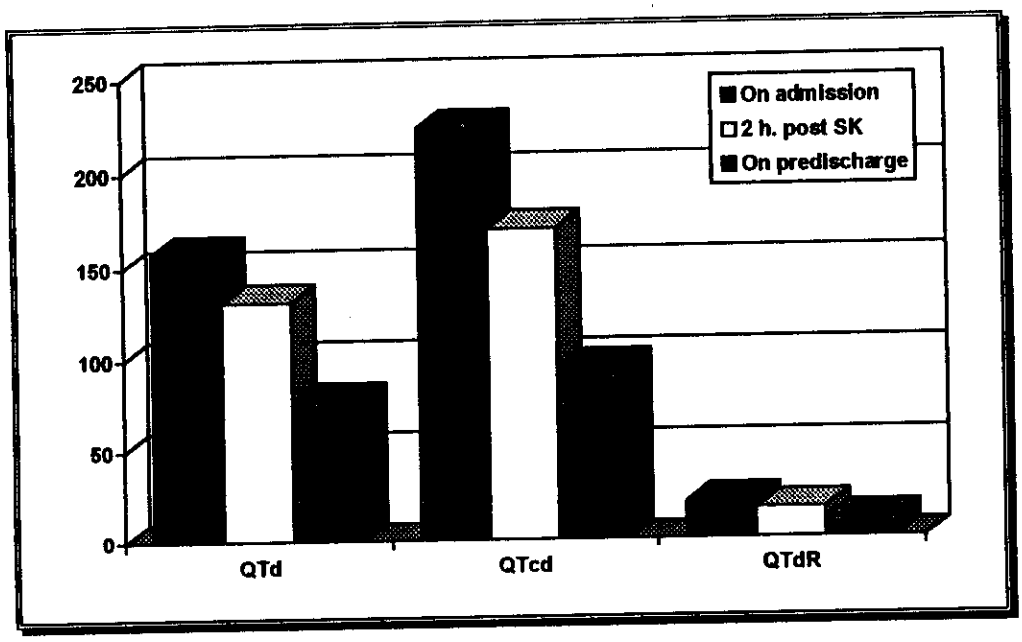

Fig. (3): Comparison between QTd, QTcd and QTdR on admission, 2 hours post-streptokinase and predischarge

In group 2:

There was a statistically highly significant difference (P<0.01) in the QTd values between admission (108.20±21.05) and predischarge (133.60±22.70).

The difference was statistically highly significant (P<0.01) in the QTcd values between admission (150.56±88.31 msec) and predischarge 182.64±72.10 msec).

The difference was statistically highly significant (P<0.01) in the QTdR values between admission (15.26±4.11 msec) and predischarge (18.13±4.86).

Table (5): Comparison between QTd, QTcd, QTdR on admission and predischarge in patients not received streptokinase

	Mean±SD	t	P
QTd on admission	108.20±21.05	7.66	P<0.01 (HS)
QTd on predischarge	133.60±22.70		
QTcd on admission	150.56±88.31	5.73	P<0.01 (HS)
QTcd on predischarge	182.64±72.10		
QTdR on admission	15.26±4.11	6.64	P<0.01 (HS)
QTdR on predischarge	18.13±4.86		

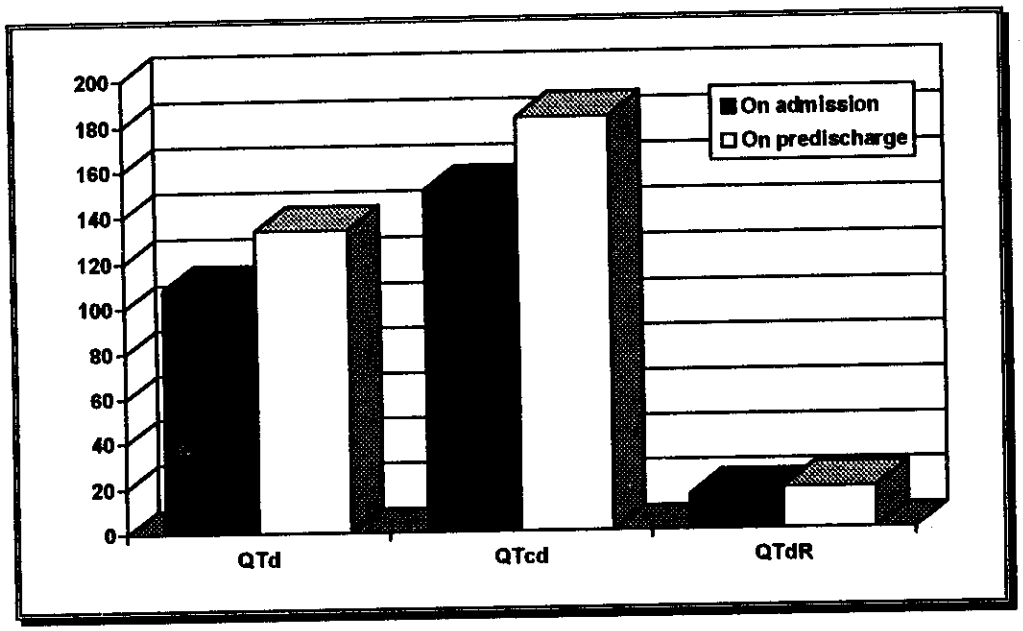

Fig (4): Comparison between QTd, QTcd, QTdR on admission and predischarge in patients not received streptokinase

Comparison between group 1 and group 2 on admission:

The difference was statistically highly significant (P<0.01) in the QTd values between group 1 (157.88±42.50 msec) and group 2 (108.20±21.05 msec).

The QTcd values differed between group 1 (223.08±112.09 msec) and group 2 (150.56±88.31 msec). The difference was statistically highly significant (P<0.01).

There was a statistically highy significant difference (P<0.001) in the qQTdR values between group 1 (20.37±6.54 msec) and group 2 (15.26±4.11 msec).

Table (6): Comparison between group 1 and group 2 on admission

	Mean±SD	t	P
QTd without Sk	108.20±21.05	5.23	P<0.01 (HS)
QTd with SK	157.88±42.50		
QTcd wiouth SK	150.56±88.31	2.54	P<0.01 (HS)
QTcd with SK	223.08±112.09		
QRdR without SK	15.26±4.11	3.30	P<0.01 (HS)
QTdR with SK	20.37±6.54		

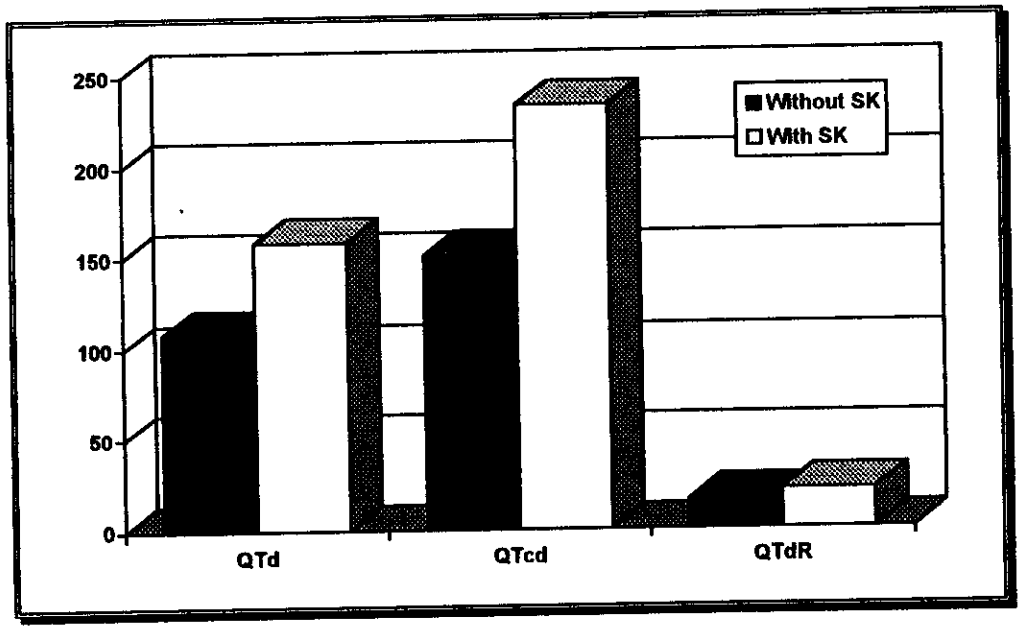

Fig. (5): Comparison between group 1 and group 2 on admission

The predischarge comparison between group 1 and group 2:

The difference was statistically highly significant (P<0.01) in the QTd values between group 1 (77.00±22.91 msec) and group 2 (133.60±2270 msec).

The QTcd values differed between group 1 (94.20±27.64 msec.) and group 2 (182.64±72.10 msex). The difference was statistically highly significant (P<0.01).

There was a statistically highly significant difference (P<0.01) in the QTdR values between group 1 (10.16±3.77 msec) and group 2 (18.13±4.86).

Table (7): Comparison between QTd, QTcd, QTdR in patients received streptokinase and those not received on predischarge

	Mean±SD	t	P
QTd predischarge without Sk	133.60±22.70	9.57	P<0.01 (HS)
QTd predischarge with SK	77.00±22.91		
QTcd predischarge wiouth SK	182.64±72.10	6.01	P<0.01 (HS)
QTcd with SK	94.20±27.64		
QRdR predischargewithout SK	18.13±4.86	5.91	P<0.01 (HS)
QTdR predischarge with SK	10.16±3.77		

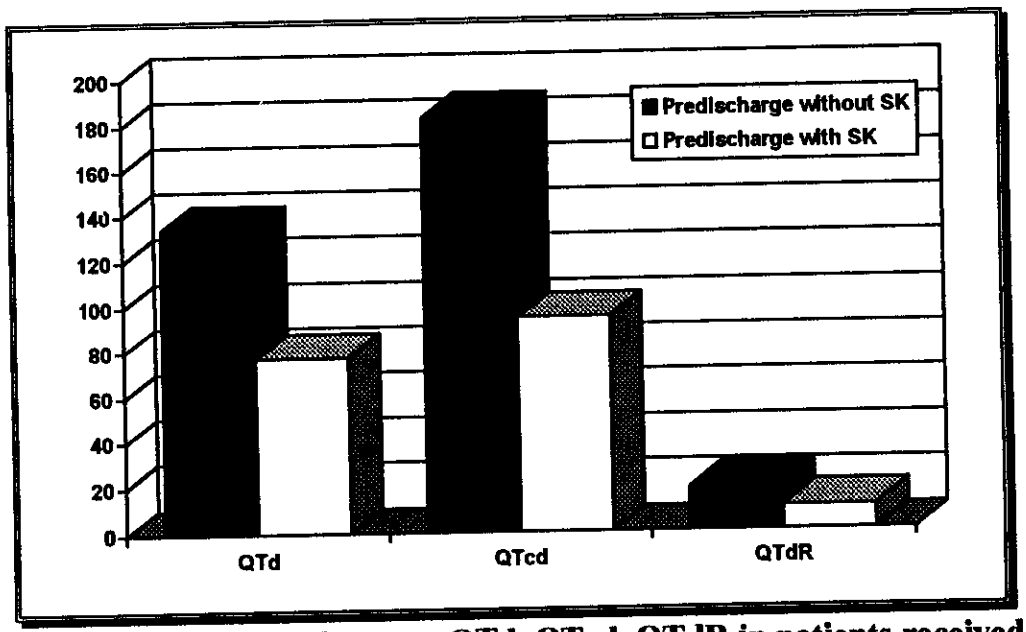

Fig. (6): Comparison between QTd, QTcd, QTdR in patients received streptokinase and those not received on predischarge

Comparison between patients less than 50 years and more than 50 years:

There was a statistically non-significant difference (P>0.05) in the QTd values between patients less than 50 years (131.25±30.31 msec) and patients more than 50 years (133.60±44.93) msec.

At the same time, QTcd values showed statistically significant difference (P<0.05) between patients less than 50 years (233.58±157.69 msec) and patients more than 50 years (172.05±81.60 msec).

Concerning the QTdR values, there was a statistically non-significant difference (P>0.05) between patients less than 50 years (17.99±3.63 msec) and patients more than 50 years (17.76±6.60 msec).

Table (8): Comparison between patients less than 50 years and patients more than 50 years

	Mean±SD	t	P
QTd (age <50 yeras)	131.25±30.31	0.16	P>0.05 (NS)
QTd (age >50 years)	133.60±44.93		
QTcd (age <50 years)	233.58±157.69	1.78	P<0.05 (S)
QTcd (age >50 years)	172.05±81.60		
QRdR (age <50 years)	17.99±3.63	0.11	P>0.05 (NS)
QTdR (age >50 years)	17.76±6.60		

Comparison between female patients and male patients:

The QTd values difference between females (142.00±35.83 msec) and males (130.80±43.05 msec) was statistically non-significant (P>0.05).

Concerning the QTcd values, the difference was non-significant (P>0.05) between females (163.40±55.72 msec) and males (192.67±115.43 msec).

Also, there was a statistically non-significant difference (P>0.05) in the QTdR values between females (18.60±4.77 msec) and males (17.62±6.29 msec).

Table (9): Comparison between male and female patients

	Mean±SD	t	P
QTd female	142.00±35.83	0.75	P>0.05 (NS)
QTd male	130.80±43.05		
QTcd female	163.40±55.72	0.77	P>0.05 (NS)
QTcd male	192.67±115.43		
QTdR female	18.60±4.77	0.45	P>0.05 (NS)
QTdR male	17.62±6.29		

Comparison between QTd, QTcd and QTdR in anterior myocardial infarction and inferior MI:

The QTd values differed non-significantly (P>0.05) between cases with anterior myocardial infarction (125.05±55.13) and cases with inferior myocardial infarction (97.85±42.86).

Also, QTcd values differed non-significantly (P>0.05) between cases with anterior MI (165.33±91.54 msec) and cases with inferior MI (141.42±132.56 msec).

The QTdR values differed non-significantly (P>0.05) between cases with anterior MI (16.40±4.77 msec) and cases with inferior MI (17.47±4.54 msec).

Table (10): Comparison between QTd, QTcd and QTdR in anterior myocardial infarction and inferior MI:

	Mean±SD	t	P
QTd anterior	125.05±55.13	1.65	P>0.05 (NS)
QTd inferior	97.85±42.86		
QTcd anterior	165.33±91.54	0.72	P>0.05 (NS)
QTcd inferior	141.42±132.56		
QRdR anterior	16.40±4.77	0.72	P>0.05 (NS)
QTdR inferior	17.47±4.54		

Comparison between smokers and non-smokers:

The QTd and QTdR values differed between smokers (137.73±46.65 and 18.57±6.69) and non-smpkers (126.00±32.50 and 16.63±4.73). The difference was statistically non-significant (P>0.05).

There was a statistically significant difference (P<0.05) in the QTcd values between smokers (207.96±128.73) and non-smokers (155.10±46.06).

Table (11): Comparison between smokers and non smokers

	Mean±SD	t	P
QTd smokers	137.73±46.65	0.97	P>0.05 (NS)
QTd non-smokers	126.00±32.50		
QTcd smokers	207.96±128.73	1.75	P>0.05 (NS)
QTcd non-smokers	155.10±46.06		
QRdR smokers	18.57±6.69	1.12	P>0.05 (NS)
QTdR non-smokers	16.63±4.73		

Comparison between diabetic and non-diabetic:

The QTd, QTcd and QTdR values differed between diabetic patients (156.12±45.44, 225.12±114.09 and 21.10±6.26) and non-diabetic patients (111.73±22.58, 151.46±86.57 and 14.76±3.78). The difference was statistically highly significant (P<0.01).

Table (12): Comparison between diabetic and non-diabetic

	Mean±SD	t	P
QTd diabetic	156.12±45.44	4.42	P<0.01 (HS)
QTd non-diabetic	111.73±22.58		
QTcd diabetic	225.12±114.09	2.58	P<0.01 (HS)
QTcd non-diabetic	151.46±86.57		
QRdR diabetic	21.10±6.26	4.37	P<0.01 (HS)
QTdR non-diabetic	14.76±3.78		

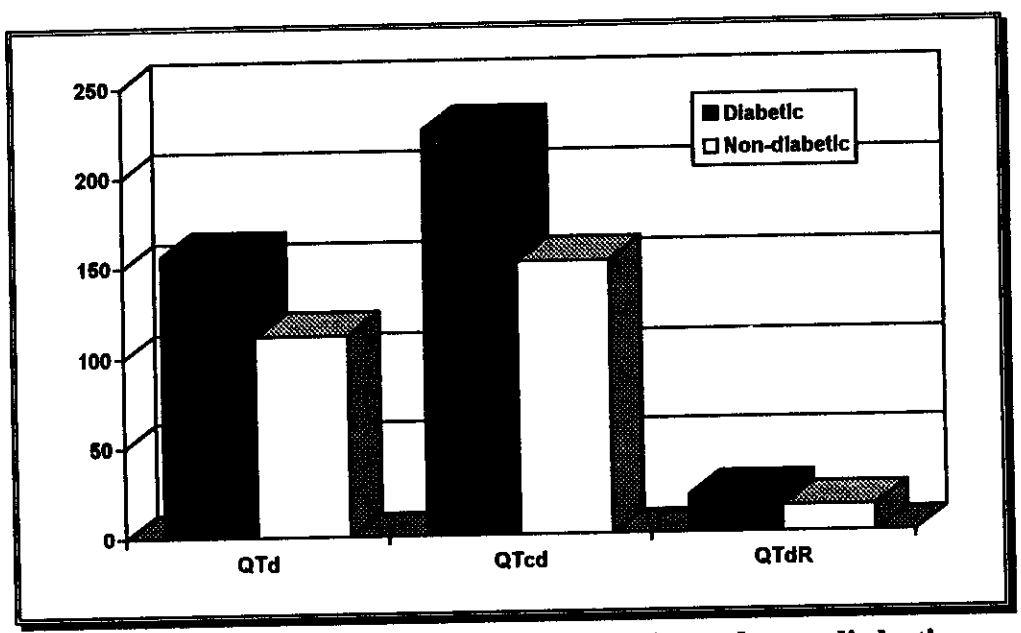

Fig. (7): Comparison between diabetic and non-diabetic

Comparison between hypertensive patients and non-hypertensive patients:

There was a statistically significant difference (P<0.05) in the QTd values between hypertensive patients (141.40±48.39) and non-hypertensive patients (120.50±24.80).

The QTcd and QTdR values differed between hypertensive patients (194.90±113.21 and 18.90±6.63) and non-hypertensive patients (174.70±96.75 and 16.14±4.58). The difference was statistically non-significant (P>0.05).

Table (13): Comparison between hypertensive and non-hypertensive patients

	Mean±SD	t	P
QTd hypertensive	141.40±48.39	1.77	P<0.05 (S)
QTd non-hypertensive	120.50±24.80		
QTcd hypertensive	194.90±113.21	0.65	P>0.05 (NS)
QTcd non-hypertensive	174.70±96.75		
QRdR hypertensive	18.90±6.63	1.62	P>0.05 (NS)
QTdR non-hypertensive	16.14±4.58		

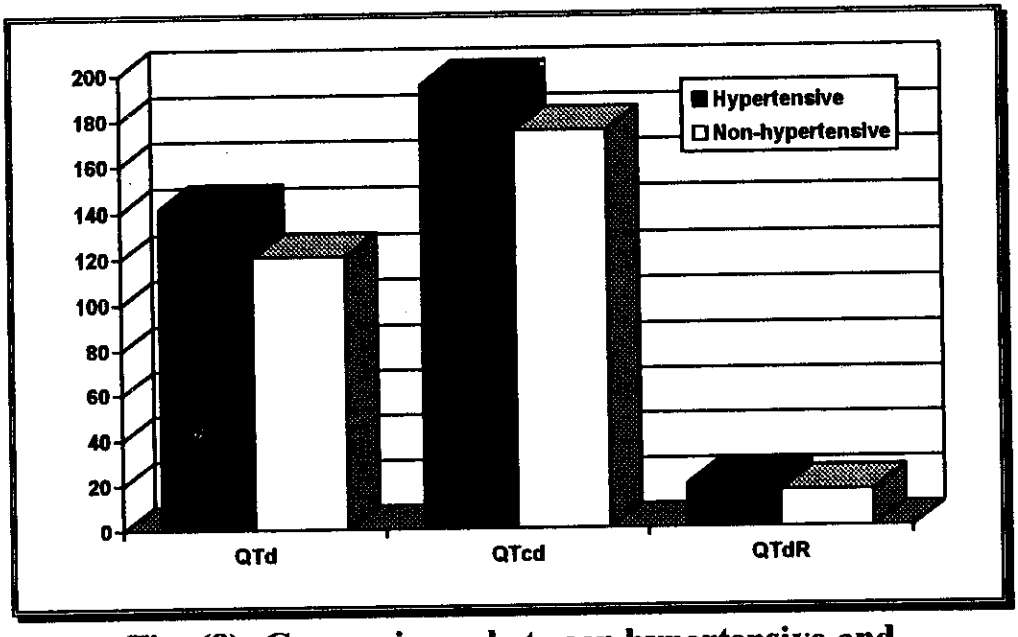

Fig. (8): Compariuson between hypertensive and non-hypertensive patients

Comparison between patients with and without ventricular arrhythmias:

Ten patients (20%) are complicated with ventricular arrhythmia and 40 patients (80%) are not complicated. Eight patients (16%) had ventricular fibrillation and 2 patients (4%) had ventricular tachycardia.

There was a statistically highly significant difference in QTd ($P<0.01$) on admission between cases complicated by ventricular arrhythmias (168.20±70.64 msec) and those wihout arrhythmias (104.75±39.41).

The QTcd values on admission differed between cases complicated by ventricular arrhythmias (203.00±57.12 msec) and those not complicated (147.55±55.00 msec). The difference was statistically highly significant ($P<0.01$).

There was a statistically highly significant difference in QTdR ($P<0.01$) on admission between cases complicated by ventricular arrhythmias (22.72±10.40 msec) and those not complicated (13.40±5.07 msec).

Table (14): Comparison between QTd, QTcd, QTdR in non-complicated and complicated patients

	Mean±SD	t	P
QTd non-complicated	104.75±39.41	3.82	P<0.01 (HS)
QTd complicated	168.20±70.64		
QTcd non-complicated	147.55±55.00	2.1	P<0.01 (HS)
QTcd complicated	203.00±57.12		
QRdR non-complicated	13.40±5.07	4.10	P<0.01 (HS)
QTdR complicated	22.72±10.40		

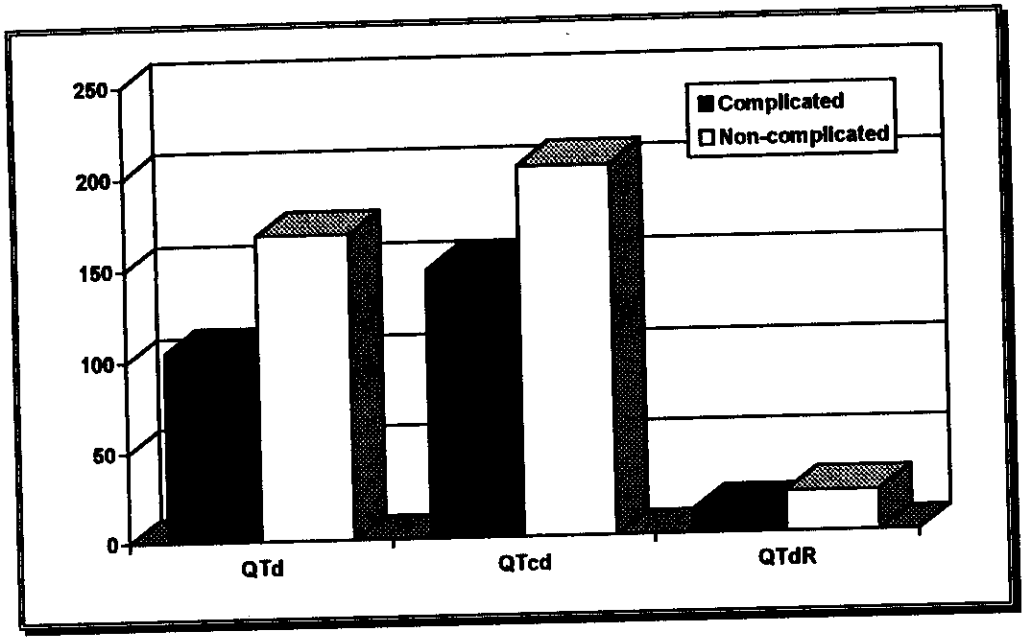

Fig. (9): Comparison between QTd, QTcd, QTdR in non-complicated and complicated patients