

**PREANGIOPLASTY CORONARY STENOSIS
MORPHOLOGY AS A PREDICTOR OF EARLY
OUTCOME OF PERCUTANEOUS TRANSLUMINAL
CORONARY ANGIOPLASTY**

*Thesis
Submitted in Partial fulfillment of the
Medical Doctorate Degree in Cardiology*

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ .

﴿ سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا
إِنَّكَ أَنْتَ الْعَلِيمُ الْحَكِيمُ ﴾

(سوره البقره آیه ۳۲)

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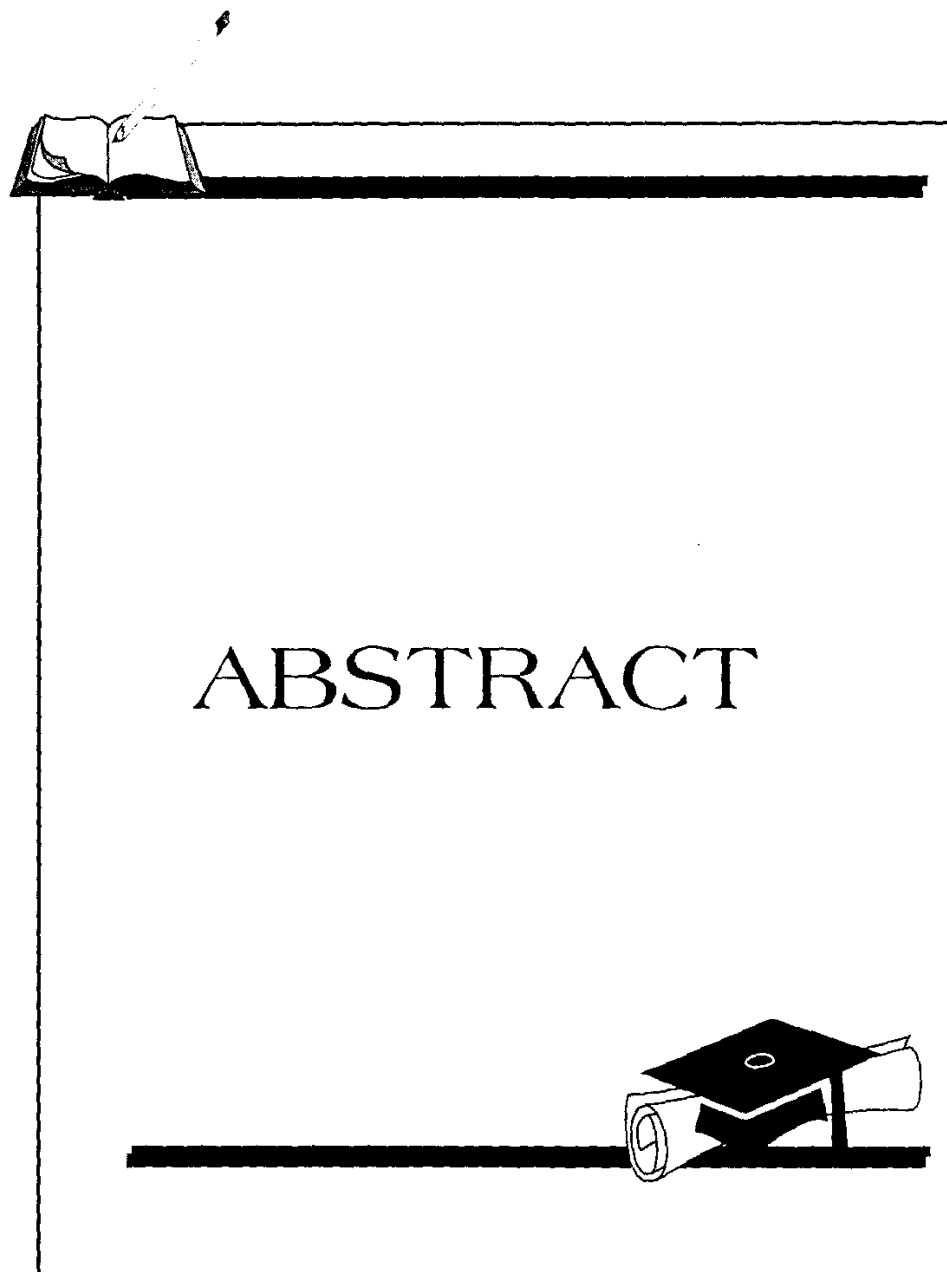
I also thank **all members of the team** working in cardiac catheterization laboratory, Nasr City Insurance hospital for their sincere efforts and unlimited cooperation.

Errata

Wrong	Right	Line	Page
Vessels	Vessel	9	1
Inflation's	Inflations	15	7
Hypoperfution	Hypoperfusion	9	9
Live	Line	2	14
rotational atherectomy]	rotational atherectomy	3	28
Revasculavization	Revascularization	19	29
n and lower risk of death and nt myocardial infarction than with intravenous streptokinase. wever, emergency PTCA.	PTCA	1	31
40 %	92 %	13	31
A angiographically	Angiographically	11	41
143.6719 ± 16.767	90.1406 ± 10.968	16	107
Tortuosity	Thrombus	3	100
Tortuosity	Thrombus	1	100
143.6719 ± 16.767	90.1406 ± 10.968	27	133
echococardiography	echocardiography	1	133
in segments	in akinetic segments	2	133
global peak dose	global resting and peak dose	19	131
observed an	kao et al., observed a	18	131
()	(Ferguson et al., 1995)	1	131
basis	basic	16	139

Errata (cont.)

Wrong	Right	Line	Page
A new	a new	10	Abs.
And in WMSI	($P < 0.05$), and in WMSI	23	Abst
No major side	($P < 0.05$). No	24	Abst
task	task Force	17	1
are out dated	seemed to be outdated	20	1
Braunwald 1987	Campeau 1976	70	3
Systolic function	Systolic dysfunction	22	7
and	Within	19	18
0.9-0.11	0.9-1.1	25	32
5 %	5-37 %	17	53
Or	Of	9	57
Braunwald 1987	Braunwald 1997	4	70
Form	From	24	70
Cite	Site	7	78
residual stenosis	residual stenosis Stents employed in recommended cases of elastic recoil and dissection	13	78
80	<80	17	78
Was	Were	5	81
New regional	Regional	19	81
Lincoff A.M, Topol E.J.	Lincoff A.M, Topol E.J.,	15	162
Vomiting 20	Vomiting 30	Lesi- on 6	224



ABSTRACT

Background: As Coronary angioplasty balloons interact directly with vascular endothelium, the lesion morphology has been an important predictor of outcome of PTCA.

Aim of the work: This study aimed to study the effect of morphological characteristics of coronary lesion on early outcome of PTCA.

Patients & Methods: A total number of 66 coronary lesions in 50 patients were studied. We looked for different lesion morphological characteristics individually to assess the impact of each character on PTCA result. To make a global assessment of coronary lesion., A new angiographic score had been proposed, taking in consideration the effect of different morphological characters. Anatomical success was evaluated by dobutamine echocardiography.

Results: The length of coronary lesion, tortuosity, contour and caliber of coronary artery containing lesion were significant morphological predictor of optimal early results ($P < 0.05$). There was highly significant relation between angiographic score and early results of PTCA. ($P < 0.001$). Optimal success was 100%, 82.97% and 11.11% with angiographic score < 13 , $-13-15$ and > 15 respectively.

Functional evaluation outcome of PTCA was done using dobutamine echocardiography (D.E). It was performed within one week (90% of cases in the next day of PTCA). There was significant improvement of basic WMSI after PTCA (from 1.13 ± 0.21 to 1.09 ± 1.18) and in WMSI with dobutamine infusion in 96.7 % of patients with optimal results (from 1.09 ± 1.18 to 1.05 ± 0.14). No major side effects were reported.

Conclusion: The proposed angiographic score seemed to be valuable in predicting outcome of PTCA. The length of lesion, tortuosity, contour and caliber of coronary artery are predictor of outcome of PTCA. Dobutamine echocardiography is a valuable safe method to evaluate patients after coronary angioplasty.

Key words morphology- angiographic score- angioplasty- dobutamine.

