CODEN [USA]: IAJPBB ISSN : 2349-7750

INDO AMERICAN JOURNAL OF
PHARMACEUTICAL SCIENCES
SJIF Impact Factor: 7.187

Avalable online at: http://www.iajps.com *Research Article*

PERVASIVENESS AND DANGER FEATURES OF SEVERE CORONARY DISEASE IN YOUNGISH POPULACE

[1]Barha Rafiq Chaudhry, [2]Ali Raza Balouch, [3]Dr. Nazia Akbar
[1]Bahawal Victoria Hospital Bahawalpur

Article Received: November 2020 **Accepted:** December 2020 **Published:** January 2021

Abstract:
Objective: *Main aim of this Investigation work was to evaluate the pervasiveness proportion, demographic traits and danger features for A-C-S between victims having less than forty five yrs of age. Normally, this difficulty is not common between youngish persons in comparison with elder populace of community. One of the main cause of high proportion of morbidity as well as transience in the whole world is A-C-S (Severe Coronary Disease).*
Methodology: *The collection of the indicators and its analysis carried out. Comparison of the victims having less than forty five yrs of age carried out with the victims having greater than forty five yrs of age. This examination is a transverse, retrograde Investigation work. We recruited the victims with random sampling of the victims who got admission because of A-C-S in Sir Ganga Ram Hospital, Lahore from April 2017 to January 2020.*
Result: *The average age of these victims was 39.2 ± 6.0 yrs. The diagnosis of all the youngish victims of A-C-S carried out with the unstable quinsy and NSTEMI (Non-ST Elevation Myocardial Infarction). A sum of total 628 victims were the participants of this Investigation work. The pervasiveness of A-C-S in youngish populace with A-C-S was 6.12%. Smokers of tobacco, DM and HTN displayed important association with the onset of A-C-S in youngish populace ($P \leq 0.050$).There were 59.50% youngish victims of A-C-S who were addicted to smoking, whereas 37.80% and 51.40% between them were suffering from DM (Diabetes Mellitus) and HTN (Hypertension) correspondingly. Habit of cigarette smoking and past history of diseases of coronary artery in the family were very common in the youngish victims of A-C-S.*
Conclusion: *So, it is vital to detect these features and the implementation of strict measures are necessary to handle these features for the prevention of the progression of diseases of coronary artery. Three most important danger features (cigarette smoking, DM and HTN) had been displayed to have significant association with the onset of A-C-S in youngish populace.*

Keywords: *A-C-S, coronary, artery, pervasiveness, association, Diabetes mellitus, correspondingly, pervasiveness, retrograde, transverse.*

Corresponding author:
Barha Rafiq Chaudhry,
Bahawal Victoria Hospital Bahawalpur.

QR code

Please cite this article in press Barha Rafiq Chaudhry et al, ***Pervasiveness And Danger Features Of Severe Coronary Disease In Youngish Populace.,*** *Indo Am. J. P. Sci, 2021; 08(1).*

INTRODUCTION:

In our country Pakistan, C-A-D (Coronary Artery Disease) is very important cause of high proportion of transience and it is accountable for 15% to 20% of deaths in hospitals [1]. One important cause of high proportion of transience in whole world is IHD (Ischemic Heart Disease) in accordance with the findings of WHO in 2012 [2]. The incidence proportion of A-C-S in populace having less than forty or forty five year of age ranges from 2.0% to 10.0% on the basis of the Investigation works conducted in various countries of the world [3]. Medical spectrum of IHD is A-C-S with a range from not stable quinsy, NSTEMI to STEMI. The pervasiveness of A-C-S is much low in populace of youngish age as compared to the populace of older age [4].

Recently, there is scarcity of indicators on the pervasiveness proportion and danger features of A-C-S in youngish populace of our country, Pakistan. [5]. Danger features of cardiovascular difficulty like habit of cigarette smoking, obesity, hyperlipidemia, and past history of C-A-D in the family, has been detected more frequent in populace of youngish age A-C-S victims in these Investigation works This Investigation work will provide fundamental indicators to conduct multi-center Investigation work in our country, Pakistan in near future. This Investigation work aimed to evaluate the proportion of pervasiveness and associated danger features for A-C-S in the victims having less than forty five yrs of age.

METHODOLOGY:

All the victims having age of less than forty five year of age who got admission in hospital with A-C-S diagnosis from 2017 to 2020 were the participants of this Investigation work. This is a transverse, retrograde Investigation work conducted in a single center. The collection of indicators also included the danger features which were main contributors to pervasiveness of A-C-S between youngish populace. We used the method of random sampling for the selection of the victims.

We also recorded the other medical information as the availability of comorbidities like DM (Diabetes Mellitus), HTN (Hypertension) and dyslipidemia, laboratory findings as well as imaging reports. The assessment of medical records of the victims carried out and we also recorded the characteristics of demography of all the victims. The analysis of the association between different variables carried out with the utilization of the Chi-square Test. P value of less than 0.050 was significant. As this Investigation work was a retrograde Investigation work, therefore there was no need to get the permission of the victims. SPSS V. 23 was in use for the statistical analysis of the collected information. The ethical committee of the Sir Ganga Ram Hospital, Lahore gave the permission to conduct this Investigation work. We used averages and standard deviations for the representation of the continuous indicators. We used the descriptive indicators for the description of the collected indicators. We presented the categorical indicators in frequencies & percentages.

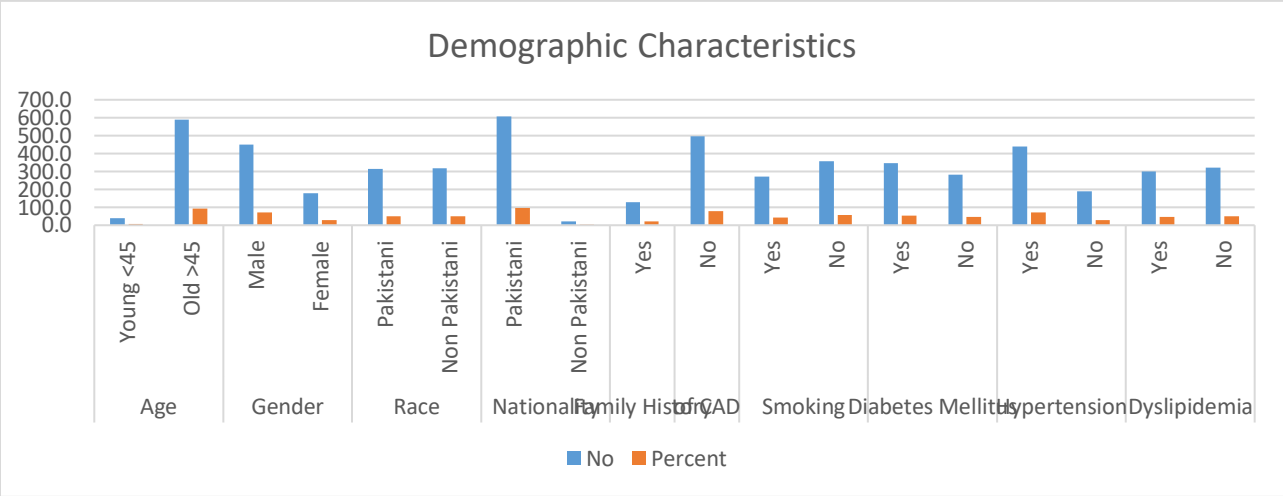
RESULTS:

Table-1 is providing the characteristics of demography and baseline Medical traits of all the included victims. The recruitment of total six hundred and twenty eight victims carried out in this Investigation work.

Table-I: Distribution of demographic between victims with severe coronary disease in the hospital.

Demographics		No	Percent
Age	Old >45	590.0	93.80
	Youngish <45	38.0	6.20
Nationality	Pakistani	608.0	96.50
	Non Pakistani	20.0	3.50
Family History	Yes	129.0	20.40
	No	497.0	79.20
Smoking	Yes	270.0	43.20
	No	356.0	56.80
Diabetes Mellitus	Yes	345.0	54.80
	No	283.0	45.30
Gender	Male	450.0	71.80
	Female	178.0	28.40
Race	Pakistani	314.0	49.70
	Non Pakistani	316.0	50.30

Dyslipidemia	Yes	301.0	47.80
	No	323.0	51.50
Hypertension	Yes	438.0	69.50
	No	190.0	30.40



The pervasiveness proportion of A-C-S in youngish populace was 6.10% in our institute. The connection between ages of victims, various danger features and A-C-S onset are present with illustration in Table-2 and Table-3 correspondingly. We diagnosed all the youngish victims of A-C-S with NSTEMI and unstable quinsy. The average age of the victims was 39.0 ± 6.0 yrs.

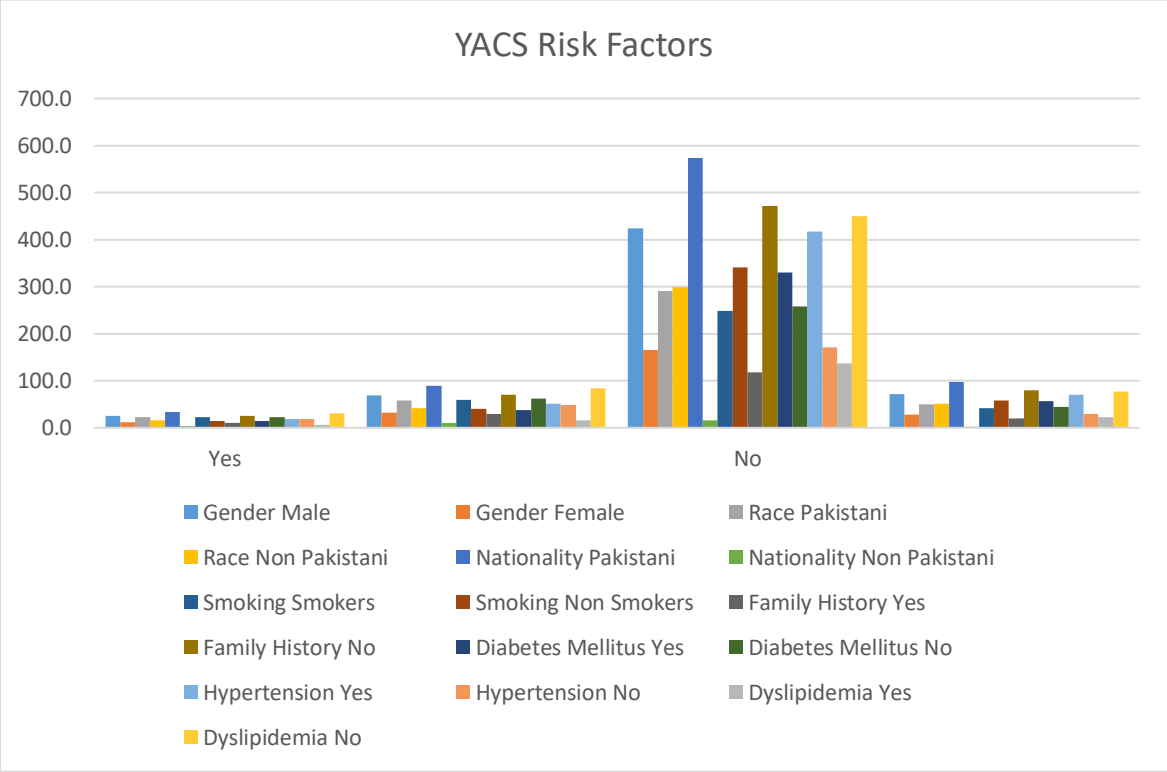
Table-II: The association between age and YA-C-S

Age	Youngish Severe Coronary Disease (YA-C-S)				X^2	P value
	Unstable Quinsy					
	STEMI		NSTEMI			
	No	Percent	No	Percent		
Old (> 45)	453.0	76.80	137.0	23.20	-	-
Youngish (< 45)	38.0	100.00	0.0	0.00	11.286	0.0010

Table-III: The association between the danger features with the onset of youngish A-C-S.

Variables		Youngish Severe Coronary Disease (YA-C-S)				X^2	P value
		Yes		No			
		n	%	n	%		
Gender	Female	12.0	31.60	166.0	28.10	0.2080	0.6480
	Male	26.0	68.40	424.0	71.90		
Family History	Yes	11.0	29.70	118.0	20.00	2.0000	0.1570
	No	26.0	70.30	471.0	80.00		
Diabetes Mellitus	Yes	14.0	37.80	330.0	56.10	4.7030	0.0300
	No	23.0	62.20	258.0	43.90		
Hypertension	Yes	19.0	51.40	417.0	70.90	6.3180	0.0120
	No	18.0	48.60	171.0	29.10		

Dyslipidemia	Yes	6.0	16.20	137.0	23.30	1.0000	0.3170
	No	31.0	83.80	450.0	76.70		
Race	Pakistani	22.0	57.90	291.0	49.30	1.0490	0.3060
	Non Pakistani	16.0	42.10	299.0	50.70		
Nationality	Pakistani	34.0	89.50	574.0	97.30	NA	0.0270
	Non Pakistani	4.0	10.50	16.0	2.70		
Smoking	Smokers	22.0	59.50	248.0	42.10	4.2750	0.0390
	Non Smokers	15.0	40.50	341.0	57.90		



Between studied danger features, habit of cigarette smoking (59.50%) and past history of family with C-A-D (29.70%) were very common in the youngish victims of A-C-S as compared to the victims of elder age. Male victims were more in number (68.40%) as compared to the female victims (31.60%). Habit of cigarette smoking, DM and HTN had shown a strong association with the onset of A-C-S in youngish populace ($P \leq 0.050$). Conversely, there was very high pervasiveness proportion of DM (56.10%), HTN (70.90%) and dyslipidemia (22.30%) in older victims.

DISCUSSION:

The populace of older age had very high proportion of occurrences of many danger features as DM, HTN and dyslipidemia. The average age of the victims of A-C-S was 39.0 ± 6.0 yrs in youngish populace. In comparison with the populace of older age, the proportion of occurrence of A-C-S was much low in populace of youngish age (6.10% vs. 93.90%). Between females, estrogen has capability to decrease the LDL (Low Density Lipoprotein) and restricts the aggregation of the platelets These difficulty also increase the danger of the development of CVDs. There is high occurrence of A-C-S in youngish males as compared to females of youngish age. [3-10]. In this current Investigation work, the pervasiveness of A-C-S between victims having less than forty five yrs of age was 6.10%. This outcome is much consistent with the proportion of pervasiveness in various Investigation works conducted in different countries with a range from 2.0% to 10.0% [11].

There is also an important role of ethnic differences in the pervasiveness of this difficulty in youngish populace, the pervasiveness of A-C-S is very high

between Pakistanis (49.80%) and followed by Indians (24.40%) [12]. This observation has the explanation that there is very high occurrence of DM between Indians [14]. So, it lowers the danger of acquiring A-C-S in females. Hughes stated the high proportion of transience because of A-C-S between the Indians in this Investigation work [13]. Chew also stated the high incidence proportion of IHD between Indians complexed with DM [15]. There is need of implementation of preventive measures to restrict the easy supply of tobacco to youngishsters to reduce the pervasiveness of A-C-S between youngish populace [16].

The habit of tobacco smoking is one of the important danger features responsible for A-C-S between youngish populace according to various Investigation studies [3-10] Exposure to smoking is the main cause of the damage of endothelial cells, causing endothelial dysfunction as well as vascular intima injury [17]. There are some genomic Investigation work to suggest some abnormalities of chromosomes that are the main contributors to A-C-S onset [18]. The past history of family of C-A-D has association with the enhanced danger of A-C-S between youngish populace. The danger of acquiring A-C-S is very high between victims having past family history [19]. HTN promoted the hyperactivity between victims which advances the A-C-S onset and coronary spasm [20]. The Investigation works conducted by Schoenenberger and Uranga had displayed an important relationship between dyslipidemia and onset of A-C-S between youngish populace DM and HTN are well-known most important danger features for C-A-Ds. DM is diseases of metabolic disorder with clear difficulty on coronary blood vessels by advancing the atherosclerosis [21]. The manifestation of dyslipidemia carried out by elevation of TC (Total Cholesterol), LDL-C (Low Density Lipoprotein-Cholesterol), and TG (Triglycerides) with decreased level of HDLC (High Density Lipoprotein Cholesterol) [22].

Lamb stated in his Investigation work that adverse diabetic control was accountable for the onset of A-C-S between youngish populace regardless of the pervasiveness proportion between youngish populaces [23].

CONCLUSION:

It is much vital to detect these danger features. It is also important to implement the timely measures in handling these danger features to prevent or stop the progression of various difficulty of coronary artery. Three most important danger features which are responsible for A-C-S in youngish populace are habit of cigarette smoking, HTN and DM.

REFERENCES:

1. Hughes K, Lun KC, Yeo PP. Cardiovascular diseases in Chinese, Malays, and Indians in Singapore. I. Differences in transience. J Epidemiol Community Health. 1990;44(1):24–28.
2. Chew BH, Mastura I, Lee PY, Wahyu TS, Cheong AT, Zaiton A. Ethnic differences in glycaemic control and difficultys: the adult diabetes control and management (ADCM), Malaysia. Med J Malaysia. 2011;66(3):244–248.
3. Letchuman GR, Wan Nazaimoon WM, Wan Mohamad WB, Chandran LR, Tee GH, Jamaiyah H, et al. Pervasiveness of diabetes in the Malaysian national health morbidity survey III 2006. Med J Malaysia. 2010;65(3):180–186.
4. Harrap SB, Zammit KS, Wong ZYH, Williams FM, Bahlo M, Tonkin AM, et al. Genome-wide linkage analysis of the severe coronary disease suggests a locus on chromosome 2. Arterioscler Thromb Vasc Biol. Am Heart Assoc; 2002;22(5):874–878. doi: 10.1161/01. ATV.0000016258.40568.F1
5. Bozikov V. Severe coronary disease in diabetes. Acta Medica Croatica. 2003;58(2):151-155.
6. Pandey AK, Blaha MJ, Sharma K, Rivera J, Budoff MJ, Blankstein R, et al. Family history of coronary heart disease and the incidence and progression of coronary artery calcification: Multi-Ethnic Examination of Atherosclerosis (MESA). Atherosclerosis. 2014;232(2):369–376. doi: 10.1016/j. atherosclerosis.2013.11.042
7. Lang NN, Guðmundsdóttir IJ, Boon NA, Ludlam CA, Fox KA, Newby DE. Marked impairment of protease-activated receptor type 1-mediated vasodilation and fibrinolysis in cigarette smokers: smoking, thrombin, and vascular responses in vivo. J Am Coll Cardiol. 2008;52(1):33–39. doi: 10.1016/j.jacc.2008.04.003
8. National Health and Morbidity Survey (NHMS) 2011. Available at:
9. Harpaz D, Behar S, Rozenman Y, Boyko V, Gottlieb S. Family history of coronary artery disease and prognosis after first severe myocardial infarction in a national survey. Cardiology. 2003;102(3):140–146. doi: 10.1159/000080481
10. Al-Lamki L. Severe coronary disease, diabetes and hypertension: Oman must pay more attention to chronic non-communicable diseases. Sultan Qaboos Univ Med J. 2011;11(3):318.

11. Yadav Arvind S, Bhagwat Vinod R. Lipid Profile Pattern in Quinsyl Disease Victims From Marathwada Region of Maharashtra State. J Med Educ Res. 2013;2(2):12-15.
12. Schoenenberger AW, Radovanovic D, Stauffer J-C, Windecker S, Urban P, Niedermaier G, et al. Severe coronary diseases in youngish victims: presentation, treatment and outcome. Int J Cardiol. 2011;148(3):300–304. doi: 10.1016/j. ijcard.2009.11.009
13. WHO 2012. The top 10 causes of death. Available at: http://www.who.int/mediacentre/factsheets/fs310 /en
14. Health Facts 2012. Malaysia: Health Information Centre, Planning and Development Division, Ministry of Health Malaysia, 2012.
15. Imazio M, Bobbio M, Bergerone S, Barlera S, Maggioni AP. Medical and epidemiological characteristics of juvenile myocardial infarction in Italy: the GISSI experience. G Ital Cardiol. 1998;28(5):505–512.
16. Doughty M, Mehta R, Bruckman D, Das S, Karavite D, Tsai T, et al. Severe myocardial infarction in the youngish— the University of Michigan experience. Am Heart J. 2002;143(1):56–62. doi: 10.1067/mhj.2002.120300
17. Shiraishi J, Kohno Y, Yamaguchi S, Arihara M, Hadase M, Hyogo M, et al. Severe Myocardial Infarction in Youngish Japanese Adults Medical Manifestations and In-Hospital Outcome. Circ J. 2005;69(12):1454–1458. doi: 10.1253/ circj.69.1454
18. Avezum A, Makdisse M, Spencer F, Gore JM, Fox KAA, Montalescot G, et al. Impact of age on management and outcome of severe coronary disease: observations from the Global Registry of Severe Coronary Events (GRACE). Am Heart J. 2005;149(1):67–73. doi: 10.1016/j. ahj.2004.06.003
19. Tungsubutra W, Tresukosol D, Buddhari W, Boonsom W, Sanguanwang S, Srichaiveth B. Severe coronary disease in youngish adults: the Thai A-C-S Registry. J Med Assoc Thai. 2007;90(Suppl 1):81–90.
20. Morillas P, Bertomeu V, Pabón P, Ancillo P, Bermejo J, Fernández C, et al. Characteristics and outcome of severe myocardial infarction in youngish victims. The PRIAMHO II examination. Cardiology. 2006;107(4):217–25. doi: 10.1159/000095421