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Research Article

CONSEQUENCE OF RISK FACTORS OF BLOOD PRESSURE THAT CAN BE MODIFIED IN PAKISTAN

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Abstract:

Aim: Albeit over 82% of the worldwide weight of cardiovascular malady happens in low-pay and center salary nations, information on the significance of danger factors is to a great extent got from created nations. In this way, the impact of such factors on danger of coronary illness in many locales of the world is obscure. **Methods:** We set up a normalized case-control investigation of intense myocardial dead tissue in 54 nations, speaking to each occupied landmass. 17 155 cases and 15 825 controls were enlisted. Our current research was conducted at Mayo Hospital, Lahore from May 2019 to April 2020. The links between smoking, hypertension history and diabetes, medium / hip ratio, dietary examples, physical motion, use of liquor and blood Apo lipoprotein and psychosocial changes are explained here. This includes myocardial localized necrosis. The chances of the hazardous component ratio to myocardial localized necrosis and the populace inferable dangers (PAR) were determined in relation to their 96 per cent CIs.

Results: Smoking (chances proportion 3.85 for current versus never, PAR 36.8% for current and previous versus never), raised ApoB/ApoA1 proportion (4.26 for top versus most minimal quintile, PAR 47.3% for top four quintiles versus least quintile), history of hypertension (1.91, PAR 16.8%), diabetes (3.38, PAR 7.8%), stomach heftiness (1.12 for top versus least tertile and 1.62 for center versus most minimal tertile, PAR 24.2% for top two tertiles versus least tertile), psychosocial factors (2.67, PAR 32.5%), day by day utilization of foods grown from the ground (0.70, PAR 13.7% for absence of day by day utilization), standard liquor utilization (0.91, PAR 7.8%), and standard physical movement (0.86, PAR 12.2%), were all altogether identified with intense myocardial localized necrosis ($p < 0.0001$ for all danger factors and $p = 0.03$ for liquor). These affiliations have been recognized in people, old people, young people and everywhere around the world. These nine hazardous factors accounted for 90% of the PAR in men and 94% in women.

Conclusion: Much of the danger from myocardial dead tissue is represented worldwide in both sexes and ages in all areas by abnormal Lipids, scoops, hypertension, diabetes, stomach heftiness, psychological factors, use of natural products, vegetables and liquors, and standard physical action. This finding suggests that methods of treating avoidance can be based worldwide on comparative standards and may prevent myocardial localized necrosis most promptly.

Keywords: Blood pressure, Blood pressure, Pakistan.

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INTRODUCTION:

In the world, average rates of cardiovascular ailment have fallen in several established nations in recent decades, although the rate of cardiovascular anemia has increased extraordinarily in low pay and in center-pay countries, with approximately 82 percent of the weight currently occurring in those countries. cardio-vascular anemic ailment has declined in average cardio-vascular anemias.1 Powerful forecasting requires a global system with the importance of cardiovascular risk factors among different ethnic communities, in various geographical areas, too. Current information about avoidance of coronary heart infection and cardiovascular ailment is essentially gotten from contemplates done in populaces of European origin. Scientists are uncertain how much these discoveries apply around the world [1]. Some evidence recommends that hazardous factors for coronary disease fluctuate among populations, for example, that lipids in south Asia do not relate to this issue and that increasing circulatory strain in Chinese people may be more important. Although the relationship between a hazardous factor and coronary artery disease is comparative in populations, it may differ in the commonness, causing various population inferable dangers (default), e.g., in Chinese people serum cholesterol might be lower [2]. On the other hand, these obvious variations between ethnic populations can be inferred from contrasts in their plans of concentrates, moreover, examinations, data acquired and small sizes of examples [3-4]. A huge report in numerous nations — talking about different districts and ethnic gatherings and utilizing standard strategies, to examine the relationship between danger variables and coronary artery disturbances — is essential to explain how the effects of risk factors change in various countries or ethnic

gatherings. The meaning of realized PAR hazard factors for intense myocardial dead tissue could also be estimated by such an investigation [5].

METHODOLOGY:

Study members were enrolled from 262 focuses from 52 nations in Asia, Europe, the Middle East, Africa, Australia, North America, and South America. The public organizer chose focuses inside each nation based on practicality. To recognize first instances of intense myocardial localized necrosis, all patients (independent old enough) admitted to the coronary consideration unit or comparable cardiology ward, introducing inside 24 h of side effect beginning, were screened. Our current research was conducted at Mayo Hospital, Lahore from May 2019 to April 2020. Each case, using explicit standards, has been enrolled at least one age coordinate (as long as 5 years more seasoned or more young) and sex-coordinated control. Control avoidance measures were indistinguishable from the measures depicted in cases, which were additionally based upon the fact that there was no past coronary disease or history of exercise thorax. The overall middle of the registration process for cases was 2.6 months. Hospital based controls (59%) were people who had a wide scope of issues random to known or expected danger factors for intense myocardial dead tissue and were admitted to a similar clinic as the coordinating case Network based monitoring (37 percent) was a cardiovascular patient specialist or family member or an orderly (not a relative first degree) cardiovascular patient. Network based controls The peruser refers to Benichou and Gail for different sizes since the inferences and formulae are confusing. Apart from when the PAR gauges were negative, customary Wald type CIs were used. CI estimates depended upon this strategy using a logit change approach.

Figure 1:

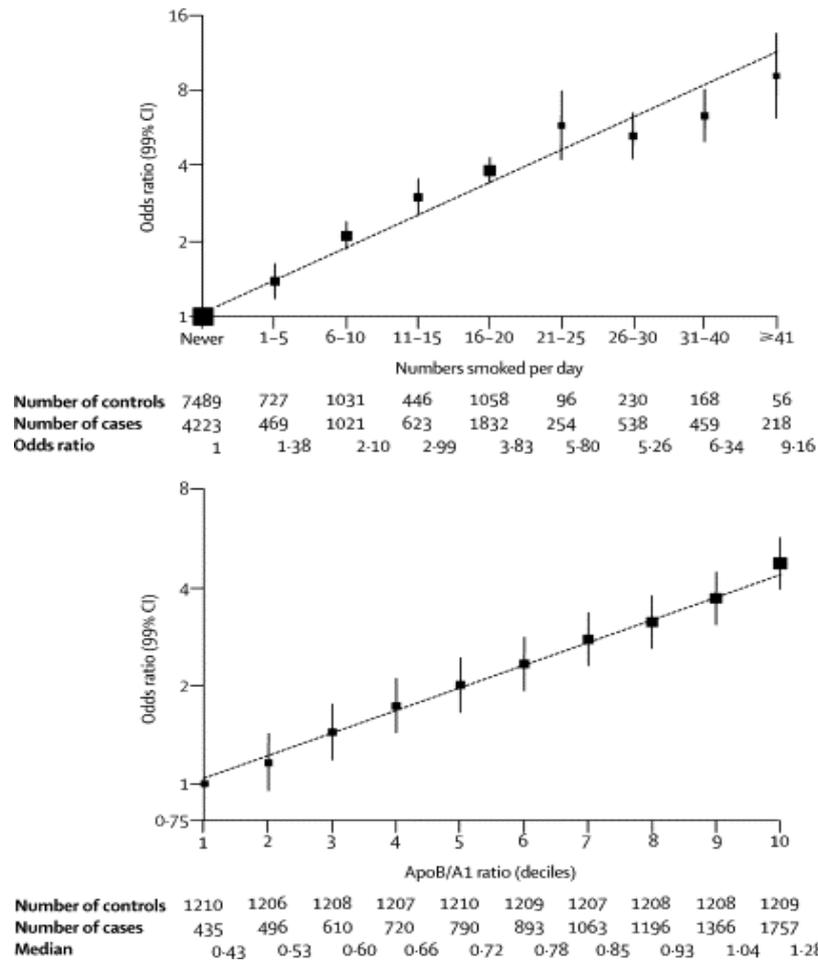


Table 1:

	Cases (n=12 461)	Controls (n=14 637)
Geographic region		
Western Europe	664	767
Central and eastern Europe	1727	1927
Middle East	1639	1786
Africa	578	789
South Asia	1732	2204
China and Hong Kong	3030	3056
Southeast Asia and Japan	969	1199
Australia and New Zealand	589	681
South America and Mexico	1237	1888
North America	296	340
Ethnic origin		
European	3314	3710
Chinese	3130	3167
South Asian	2171	2573
Other Asian	871	1073
Arab	1306	1479
Latin American	1141	1834
Black African	157	369
Coloured African	311	339
Other	60	93

Table 1: Distribution of study population

RESULTS:

Between February 1999 and March 2003 15 152 cases and 15 825 checks were registered. In 1534 cases, insecticides have been diagnosed, inadequate information has been available in 260 cases, coronary disease has been absent in 205 cases and myocardial infarction in 695 cases. 74 controls and 109 former heart disease data were lacking. Data were missing. Therefore, 12 461 cases and 14 637 controls are included in the analysis. The regional and ethnic distribution of participants is presented in Table 1. The total of 9459 (76%) and 10851 (74%) were male. The median caseload age is shown in Table 2. Overall median age is about nine years lower in men than in women in every region of the world when they have their first active myocardial infarction. In countries with a younger age of active myocardial infarction, the proportion of male cases

was however the highest — e.g., 84% of cases in southern Asia and 86% in the Middle East were masculine when compared to 75% in western Europe, 69% in central and western Europe and 70% in China. In regions with the earliest occurrence of the acute myocardial infarction, the latest patients in South Asia (medium 54 years), the Middle East (52 years), and the latest patients in Western Europe, China, and Hong Kong (64 years), striking differences were found in regions. The highest proportion of cases with first acute myocardial infarction at age 40 years or younger was in men from the Middle East (12.6%), Africa (11.8%), and south Asia (9.7%) and the lowest proportion was in women from China and Hong Kong (2.3%), South America (2.1%), and central and eastern Europe (0.8%).

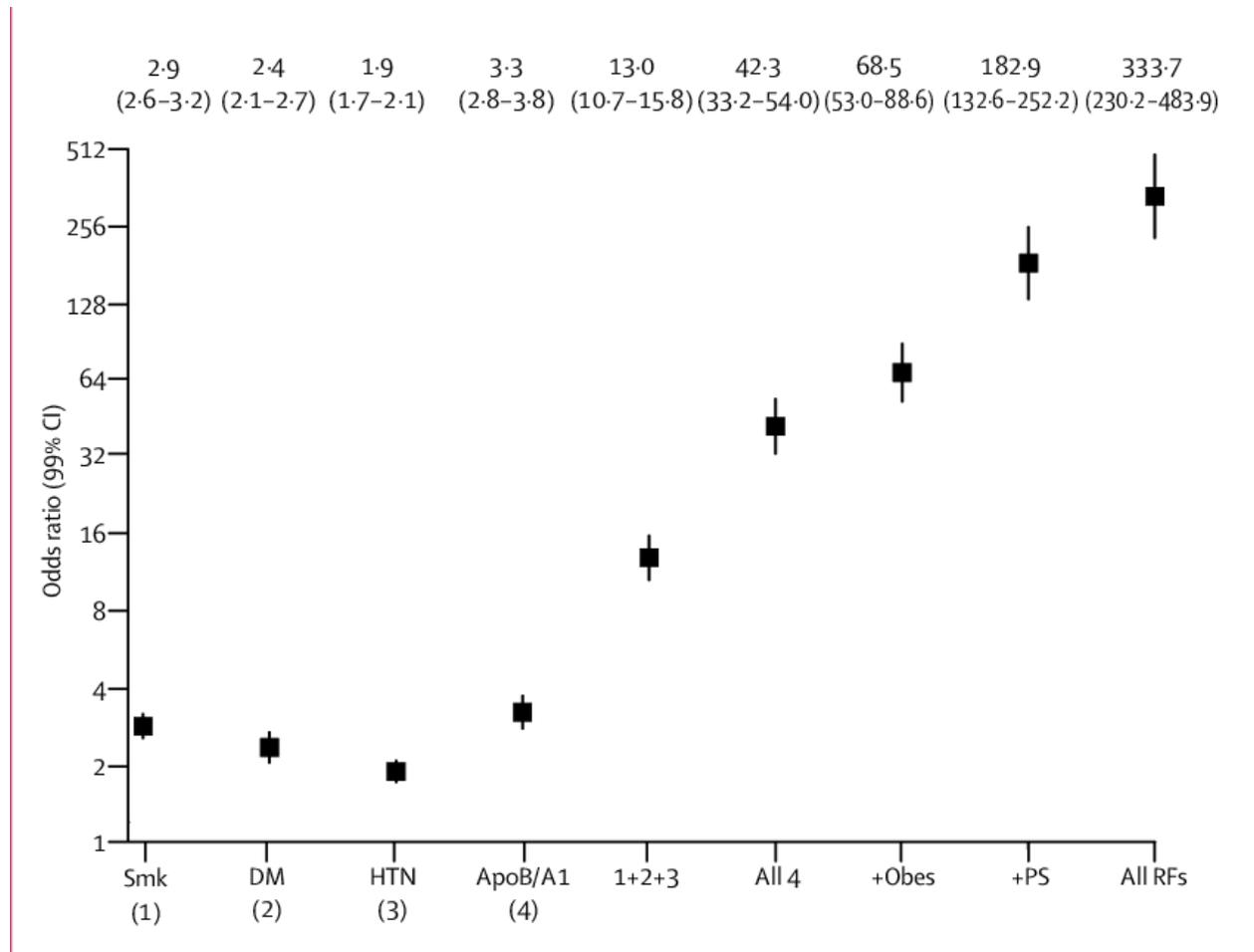
Figure 2:

Table 2:

	Overall			Men			Women		
	Number	Median age (IQR)	% <40 years (n)	Number	Median age (IQR)	% <40 years (n)	Number	Median age (IQR)	% <40 years (n)
Geographic region									
Western Europe	664	63 (54-72)	2.7 (18)	493	61 (53-70)	2.8 (14)	171	68 (59-76)	2.3 (4)
Central and eastern Europe	1727	62 (52-70)	2.9 (51)	1173	59 (50-68)	3.9 (46)	554	68 (59-74)	0.9 (5)
North America	296	59 (50-71)	4.0 (12)	210	58 (49-68)	3.3 (7)	86	64 (52-75)	5.8 (5)
South America and Mexico	1237	60 (51-70)	3.4 (42)	926	59 (50-68)	4.2 (39)	311	65 (56-73)	1.0 (3)
Australia and New Zealand	589	60 (51-69)	5.3 (31)	464	58 (50-67)	5.6 (26)	125	66 (59-74)	4.0 (5)
Middle East	1639	51 (45-59)	11.2 (184)	1410	50 (44-57)	12.6 (177)	229	57 (50-65)	3.1 (7)
Africa	578	54 (47-62)	9.7 (56)	385	52 (46-61)	10.9 (42)	193	56 (49-65)	7.3 (14)
South Asia	1732	53 (46-61)	8.9 (54)	1480	52 (45-60)	9.7 (143)	252	60 (50-66)	4.4 (11)
China and Hong Kong	3030	63 (53-70)	4.5 (135)	2131	60 (50-68)	5.8 (124)	899	67 (62-72)	1.2 (11)
Southeast Asia and Japan	969	57 (49-65)	7.0 (68)	787	55 (47-64)	8.3 (65)	182	63 (56-68)	1.7 (3)
Ethnic origin									
European	3314	62 (52-71)	3.2 (107)	2371	59 (51-69)	3.8 (89)	943	68 (58-75)	1.9 (18)
Chinese	3130	63 (53-70)	4.4 (139)	2217	60 (50-68)	5.8 (128)	913	67 (61-72)	1.2 (11)
South Asian	2171	52 (45-60)	10.6 (231)	1889	50 (45-60)	11.7 (220)	282	60 (51-66)	3.9 (11)
Other Asian	871	57 (48-65)	7.0 (61)	705	55 (47-64)	8.2 (58)	166	63 (56-68)	1.8 (3)
Arab	1306	53 (46-60)	9.0 (118)	1083	52 (45-59)	10.3 (111)	223	57 (50-65)	3.1 (7)
Latin American	1141	60 (51-69)	3.7 (42)	854	58 (50-67)	4.5 (38)	287	64 (55-72)	1.4 (4)
Black African	157	52 (46-61)	14.0 (22)	98	52 (46-59)	17.4 (17)	59	54 (48-67)	8.5 (5)
Coloured African	311	54 (47-63)	8.7 (27)	196	52 (46-62)	9.7 (19)	115	58 (49-65)	7.0 (8)
Other	60	57 (48-64)	6.7 (4)	46	53 (48-62)	6.5 (3)	14	63 (59-73)	7.1 (1)
Overall	12 461	58 (49-67)	6.0 (751)	9459	56 (48-65)	7.2 (683)	3002	65 (56-72)	2.3 (68)

Table 2: Median age (years) of presentation of cases

DISCUSSION:

We have obtained HbA1c blood tests but these must be investigated. This may have led to misclassification in certain people with respect to their hazardous factor status in our approach to the analysis of hypertension or diabetes [6]. In general, these misclassifications would undermine the true relationship between these risk variables and their results [7]. Examination of our benchmark group information demonstrates a connection between the announced predominance of hypertension in each focus and estimated circulatory strain in controls (information not appeared), proposing that there is

some legitimacy in utilizing self-reports of hypertension as a substitute for estimated circulatory strain [8]. Nonetheless, the nonappearance of accessible blood weight and glucose esteems could have thought little of their significance. Third, the relationships between rehashed proportions of a few factors (eg, diet or physical movement) numerous months separated is just moderate [9]. Techniques to address for estimation mistake and relapse weakening predisposition for one hazard factor have been described; notwithstanding, we are definitely not mindful of techniques that change for a few danger factors at the same time [10-11].

Table 3:

Risk factor	Prevalence		Odds ratio (99% CI) adjusted for age, sex, and smoking (OR 1)	PAR (99% CI)	Odds ratio (99% CI) adjusted additionally for all other risk factors (OR 2)	PAR 2 (99% CI)
	Controls (%)	Cases (%)				
Current smoking*	26.76	45.17	2.95 (2.72-3.20)	-	2.87 (2.58-3.19)	-
Current and former smoking*	48.12	65.19	2.27 (2.11-2.44)	36.4% (33.9-39.0)	2.04 (1.86-2.25)	35.7% (32.5-39.1)
Diabetes	7.52	18.45	3.08 (2.77-3.42)	12.3% (11.2-13.5)	2.37 (2.07-2.71)	9.9% (8.5-11.5)
Hypertension	21.91	39.02	2.48 (2.30-2.68)	23.4% (21.7-25.1)	1.91 (1.74-2.10)	17.9% (15.7-20.4)
Abdominal obesity (2 vs 1)†	33.40	30.21	1.36 (1.24-1.48)	-	1.12 (1.01-1.25)	-
Abdominal obesity (3 vs 1)†	33.32	46.31	2.24 (2.06-2.45)	33.7% (30.2-37.4)	1.62 (1.45-1.80)	20.1% (15.3-26.0)
All psychosocial‡	-	-	2.51 (2.15-2.93)	28.8% (22.6-35.8)	2.67 (2.21-3.22)	32.5% (25.1-40.8)
Vegetables and fruit daily*	42.36	35.79	0.70 (0.64-0.77)	12.9% (10.0-16.6)	0.70 (0.62-0.79)	13.7% (9.9-18.6)
Exercise*	19.28	14.27	0.72 (0.65-0.79)	25.5% (20.1-31.8)	0.86 (0.76-0.97)	12.2% (5.5-25.1)
Alcohol intake*	24.45	24.01	0.79 (0.73-0.86)	13.9% (9.3-20.2)	0.91 (0.82-1.02)	6.7% (2.0-20.2)
ApoB/ApoA1 ratio (2 vs 1)§	19.99	14.26	1.47 (1.28-1.68)	-	1.42 (1.22-1.65)	-
ApoB/ApoA1 ratio (3 vs 1)§	20.02	18.05	2.00 (1.74-2.29)	-	1.84 (1.58-2.13)	-
ApoB/ApoA1 ratio (4 vs 1)§	19.99	24.22	2.72 (2.38-3.10)	-	2.41 (2.09-2.79)	-
ApoB/ApoA1 ratio (5 vs 1)§	20.00	33.49	3.87 (3.39-4.42)	54.1% (49.6-58.6)	3.25 (2.81-3.76)	49.2% (43.8-54.5)
All above risk factors combined¶	-	-	129.20 (90.24-184.99)	90.4% (88.1-92.4)	129.20 (90.24-184.99)	90.4% (88.1-92.4)

The median waist/hip ratio was 0.93 in cases and 0.91 in controls (p<0.0001), and the median ApoB/ApoA1 ratio was 0.85 in cases and 0.80 in controls (p<0.0001). Percentage of controls with four or five factors positive is 22.2% compared with 29.2% in cases. *PARs for smoking, abdominal obesity, and ApoB/ApoA1 ratio are based on a comparison of all smokers vs never, top two tertiles vs lowest tertile, and top four quintiles vs lowest quintile. For protective factors (diet, exercise, and alcohol), PARs are provided for the group without these factors. †Top two tertiles vs lowest tertile. ‡A model-dependent index combining positive exposure to depression, perceived stress at home or work (general stress), low locus of control, and major life events, all referenced against non-exposure for all five factors. §Second, third, fourth, or fifth quintiles vs lowest quintile. ¶The model is saturated, so adjusted and unadjusted estimates are identical for all risk factors. The odds ratio of 129.20 is derived from combining all risk factors together, including current and former smoking vs never smoking, top two tertiles vs lowest tertile of abdominal obesity, and top four quintiles vs lowest quintile of ApoB/ApoA1. If, however, the model includes only current smoking vs never smoking, the top vs lowest tertile for abdominal obesity, and the top vs lowest quintile for ApoB/ApoA1, the odds ratio for the combined risk factors increases to 333.7 (99% CI 230.2-483.9).

Table 3: Risk of acute myocardial infarction associated with risk factors in the overall population

CONCLUSION:

In summary, in this vast case-control world-wide study, nine hazard factors estimated without a problem were linked to more than 90 per cent of the risk of severe myocardial dead tissue. These results are reliable at every location and ethnic gathering in the world, young and old. Despite the fact that needs can differ between geographical areas due to variations in risk factor prevalence and disease and financial conditions, our results suggest that ways of combating coronary supply disease can be based around the world on similar standards. Accordingly, alteration of right now realized danger factors has the potential to forestall untimeliest instances of myocardial dead tissue around the world.

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