

THE CHANGING PATTERN OF DISEASES AMONG NIGERIAN PILGRIMS TO MECCA WITH SPECIAL REFERENCE TO HYPERTENSION

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SUMMARY

The pattern of diseases as seen by a physician member of the medical teams accompanying Nigerian Pilgrims to Mecca during the 1971/72, 1976 and 1977 Hajj seasons respectively has been analysed. Malaria was the greatest cause of morbidity during the three seasons and its prevalence progressively increased. Myalgia also progressively increased while respiratory diseases progressively decreased in prevalence. The prevalence of bacterial dysentery and inanition remarkably decreased but that of hypertension and anxiety increased during the period. Most of the hypertensives were symptomless and were diagnosed for the first time during the pilgrimage. This change in pattern may be due to the measures taken by the government to limit the number of pilgrims and ensure that only those who could withstand the exertions of the Hajj rites were permitted to undertake the pilgrimage. It is suggested that doctors serving in future medical teams should endeavour to check the blood pressure of clinic patients routinely in order to detect the hypertensives. This vigilance would further help to reduce the morbidity and mortality among pilgrims attributable to the complications of hypertension.

INTRODUCTION

The fifth pillar of Islam is Hajj or Pilgrimage to Mecca. The Holy Qur'an chapter 3:97 states that "Pilgrimage is a duty men owe to God but it is for those who can afford the journey". It is implied in this statement that a pilgrim should be fit physically and mentally apart from making adequate material provision. As a member of the Federal Medical Teams to look after Nigerian pilgrims during the 1971/72 and 1976 pilgrimages respectively and as a member of the

Ogun State of Nigeria Pilgrims Welfare Board in 1977 I felt it would be worthwhile to document the relative prevalence of diseases as seen among pilgrims attending the clinics set up at the various stations in Jeddah, Mecca, Medina, Muna and Arafat. The knowledge of this would enable the National Pilgrims Welfare Board to make adequate provisions of the necessary drugs. This study was prompted by the fact that certain drugs were soon exhausted due to the great demand for them while others had been carried over from year to year because there was little or no indication for their use.

MATERIALS AND METHODS

Nigerian Pilgrims attending the clinics at the medical stations where I was on duty constitute the subjects of this study. The stations were located at Jeddah Airport, Mecca (Musfallah section), Medina, Arafat and Muna respectively. A clinical diagnosis of every patient seen by me was made and the blood pressure of each patient was checked in the sitting and standing positions using an aneroid sphygmomanometer with a 14 cm cuff. After appropriate treatment had been given, the patient was told to report back to see if the therapeutic trial of the drugs prescribed had been successful. The blood pressure was then rechecked and those whose sitting blood pressure was greater than 160/95 were questioned about previous medical history, family history and drug history particularly recognition of antihypertensive drugs available at the clinic. They were then advised about the need for low salt diet and regular treatment both during the pilgrimage and after returning to their homes. Statistical analysis of the relative prevalence of diseases during the three seasons was made using the chi square (X^2) test.

RESULTS

Table 1 shows the Pilgrims Diseases seen in the 1971/72, 1976 and 1977 pilgrimages respectively. Malaria was the commonest disease constituting 26.9 percent, 31.9 percent and 39.6 percent respectively during the periods. Thus the relative prevalence tended to increase. This trend was significant from season to season χ^2 1971/72 vs. 1976 = 6.41 and $P < 0.01$, χ^2 1971/72 vs. 1977 = 16.34 and χ^2 1976 vs. 1977 = 6.16 and $P < 0.01$. The relative prevalence of myalgia/arthralgia also tended to increase significantly from 1971/72 to 1976 $\chi^2 = 30.03$ and $P < 0.01$ but the increase from 1976 to 1977 was not significant $\chi^2 = 0.81$ and $p > 0.05$.

There was significant decrease in the relative prevalence of respiratory diseases χ^2 for 1971/72 vs. 1976 = 3.46 and $P < 0.05$, χ^2 for 1971/72 vs. 1977 = 24.09 and $P < 0.01$ and χ^2 for 1976 vs. 1977 = 15.92 and $P < 0.01$. This was mainly due to reduction in the relative prevalence of acute bronchitis and pneumonia; there being no significant change in the relative prevalence of bronchial asthma.

There was decrease in the relative prevalence of dysentery χ^2 for 1971/72 vs. 1976 = 78.96 and $P < 0.01$, χ^2 for 1971/72 vs. 1977 = 29.74 and $P < 0.01$ but the decrease from 1976 to 1977 was not significant $\chi^2 = 1.25$ and $P > 0.05$.

There was significant decrease in the relative prevalence of inanition χ^2 for 1971/72 vs. 1976 = 17.07 and $P < 0.01$, χ^2 for 1971/72 vs. 1977 = 14.26 and $P > 0.01$ and χ^2 for 1976 vs. 1977 = 4.78 and $P < 0.05$.

There was significant increase in the relative prevalence of hypertension χ^2 for 1971/72 vs. 1976 = 4.71 and $P < 0.05$, χ^2 for 1971/72 vs. 1977 = 19.51 and $P < 0.01$ and χ^2 for 1976 vs. 1977 = 8.83 and $P < 0.01$.

Table 2 shows the breakdown of hypertensive pilgrims into those presenting with symptoms attributable to hypertension and those without such symptoms as well as into those previously diagnosed and those newly diagnosed. It is seen that most of the hypertensive pilgrims were symptomless and were diagnosed for the first time during the pilgrimage. Table 3 shows the sex of the hypertensive pilgrims. Most of them were males.

DISCUSSION

The Holy Qur'an 3:96-97 states "surely the first house of worship appointed for mankind is that at Bekka, a blessed place and a guidance to all beings. In it are clear signs such as the station or Ibraheem and whoever enters it shall be secure. And Pilgrimage to the House is a duty men owe to God - those who can afford the journey. But if any denies faith surely Allah is self-sufficient and is not in need of any of his

creatures". Furthermore the Holy Qur'an 22:27-28 states "And proclaim the Pilgrimage to the people; they will come to thee on foot and on every kind of camel lean on account of the journeys through deep and distant mountain highways that they may witness the benefits to them and remember the name of Allah through the appointed days and over the cattle which he was provided for them for sacrifice". In consonance with these statements, the number of pilgrims progressively increases every year. Nigerian Muslims also contribute to this ever increasing number. In 1970 24,185 out of 406,295 pilgrims (5.95 per cent) were Nigerians, in 1971/72 the number had risen to 44,061 out of 479,339 (9.19 per cent). The number was 93,000 in 1976 and by 1977 it had reached 104,577 out of 1,089,429 pilgrims (9.60 per cent).

In 1970 there were 5 doctors in the Federal Medical team; in the 1971/72 season there were 6 doctors one of whom performed mainly administrative duties, so in effect only 5 were fully engaged with patients; the author was one of these five. This season was in December and January and the cold weather coupled with the dusty road and path between Safa and Marwa might have contributed to the relatively high prevalence of respiratory diseases especially acute bronchitis. By 1976 the path between Safa and Marwa had been tiled and so had the precincts of the Jamra in Muna. In addition many of the state Pilgrims Welfare Boards brought their own medical and health teams to supplement the 10 doctors in the Federal Medical Team. These facts might have led to the much lower prevalence of respiratory diseases and bacterial dysentery.

In 1977 the author was present in Mecca as a member of the Ogun State Pilgrims Welfare Board and only acted as a relief for the doctor who accompanied the pilgrims from the state. Ninety-five percent of the patients seen on this pilgrimage were therefore from Ogun State. Nevertheless the same trend is apparent. Hypertension, diabetes and anxiety neurosis tended to increase in prevalence while infective diseases like acute bronchitis, pneumonia and dysentery tended to decrease. In addition, a disease due to poor nutrition like inanition decreased its prevalence. Between the 1971/72 and 1976 Hajj seasons the Federal Military Government had ruled that all pilgrims should be registered with state Welfare Boards instead of with private pilgrim agents who were usually more concerned with the profit they made in the Hajj period instead of with the welfare of their pilgrims. Thus, diseases due to neglect were reduced. Salawu (1957) had suggested that future medical missions should be able to collect valuable medical data of scientific value, besides establishing

treatment centers for pilgrims. It is not uncommon to find newspaper headlines like "Another pilgrim dies" suddenly. Such deaths may be due to unrecognized and therefore untreated hypertension. The present data showed that most of the hypertensives were symptomless. More such patients would be detected if doctors attending the pilgrims checked their blood pressure. By maintaining such vigilance it would be

possible to reduce the morbidity and mortality among pilgrims attributable to the complications of hypertension.

REFERENCES:

1. Salawu, F. (1957) Medical Aspects of a Pilgrimage. West African Medical Journal 6:79.

Table 1: PILGRIMS DISEASES

DISEASES	1971/72		1976		1977	
	No.	Percent	No.	Percent	No.	Percent
Malaria	228	26.9	433	31.9	112	39.6
Myalgia/Arthralgia	129	15.2	339	25.0	78	27.8
Acute Bronchitis	169	19.9	221	16.3	25	8.8
Pneumonia	42	4.9	64	4.7	8	2.8
Chronic Bronchitis	11	1.3	7	0.5	2	0.7
Pulmonary Tuberculosis	1	0.1	—	—	—	—
Bronchial Asthma	21	2.5	49	3.6	5	1.8
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Congestive Heart Failure	4	0.5	2	0.1	6	2.1
Hypertension	37	4.4	89	6.6	33	11.7
Acute Pyelonephritis	3	0.4	5	0.4	—	—
Chronic Renal Failure	1	0.1	—	—	—	—
Peptic Ulcer	11	1.3	39	2.9	4	1.4
Hemorrhoids	10	1.2	22	1.6	5	1.8
Bacterial Dysentery	127	15.0	57	4.2	8	2.8
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Hepatitis	1	0.1	2	0.1	—	—
Diabetes	8	0.9	25	1.8	7	2.5
Anxiety Neurosis	27	3.2	42	3.1	17	6.0
Acute Psychosis	4	0.5	2	0.1	2	0.7
Inanition	45	5.3	28	2.1	—	—
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TOTAL (DISEASES)	879	(103.7)	1,426	(105.0)	312	(110.5)
TOTAL (PATIENTS)	849		1,356		283	

Table 2: HYPERTENSIVE PILGRIMS

	1971/72		1976		1977	
	No.	Percent	No.	Percent	No.	Percent
Symptomless	30	81.1	70	78.7	29	87.9
With Symptoms	7	18.9	19	21.3	4	12.1
Known	12	32.4	15	16.9	2	6.1
Newly Diagnosed	25	67.6	74	83.1	31	93.9
Total	37		89		33	

Table 3: SEX OF HYPERTENSIVE PILGRIMS

	1971/72		1976		1977	
	No.	Percent	No.	Percent	No.	Percent
Male	32	86.5	78	87.6	27	81.8
Female	5	13.5	11	12.4	6	18.2
TOTAL	37		89		33	
