P-31

Trends in Hypercholesterolemia, Treatment and Control among Adults in Malaysia

NMRR-18-3085-44207

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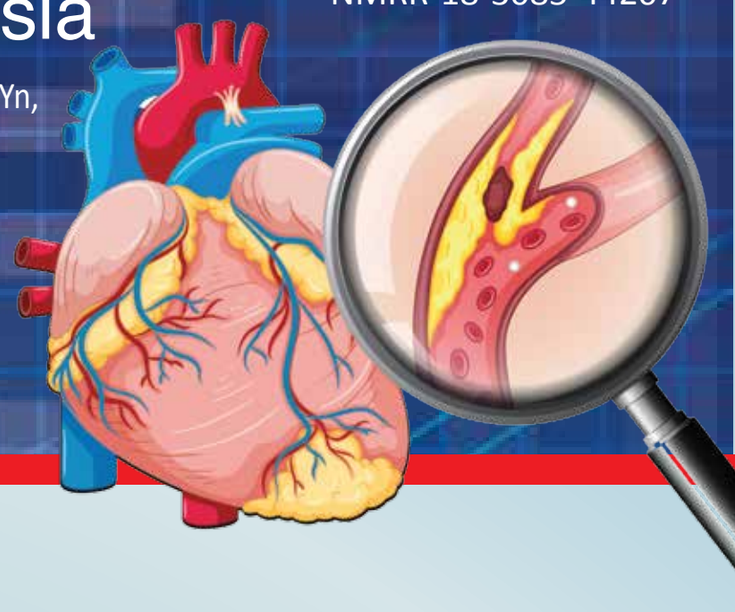

INTRODUCTION

Hypercholesterolemia is one of the major risk factors for coronary heart disease[1]. Overall, raised cholesterol is estimated to cause 2.6 million deaths and 29.7 million disability adjusted life years (DALYS)[2]. As the result, knowing the cholesterol level status, treatment and control have received a great deal of surveillance.

OBJECTIVE

The objective of this study was to examine the trends in hypercholesterolaemia prevalence, known hypercholesterolaemia, treatment and control among adults in Malaysia

METHODS

- Data from the three cycles (2011,2015,2019) of the NHMS were used.
- The NHMS is a cross-sectional community-based survey which employed a two-stage stratified cluster random sampling design to ensure national representativeness.
- Respondents aged 18 years and above were asked via face-to-face interview to respond to the hypercholesterolemia module.
- Hypercholesterolaemia was defined as a total cholesterol equal to or more than 5.2 mmol/L.
- For respondents with hypercholesterolemia, awareness was defined as 'Yes' if they had been informed previously by medical personnel that they had high cholesterol.
- Treatment for hypercholesterolemia was defined as 'Yes' if they were currently receiving medication from a doctor in the past 2 weeks for high cholesterol.
- Controlled hypercholesterolemia was defined as having a desirable blood cholesterol level at the time of the survey among respondents who were on treatment
- Complex sampling design analysis was used to account for sampling weights and study design properties.

RESULTS & DISCUSSION

- The findings showed that the prevalence of hypercholesterolemia escalated from 35.1% in 2011 to 47.7% in 2015 but decreased to 38.1% in 2019. This was lower compared to study in Philippine in 2011 (46.9%)[3] and higher compared to study in Korea in 2016(19.9%)[4].
- Meanwhile, there is an increase in the prevalence of known hypercholesterolaemia from 8.4% in 2011 to 13.5% in 2019. The finding was lower compared to a study in Korea (47.4%) in 2012 and 58.4% in 2016[4].
- The proportion those reported on medications among those who were aware that they had hypercholesterolaemia increased from 64.2% in 2011 to 80.1% in 2019. It was higher than a study in Korea (37.3%) in 2012 and 49.1% in 2016[4].
- The proportion whose hypercholesterolemia was controlled among those who were on medications increased slightly from 59.6% in 2011 to 62.6% in 2019. This finding was higher compared to Korea (29.7%) in 2010 and lower (84.3%) in 2016[4].

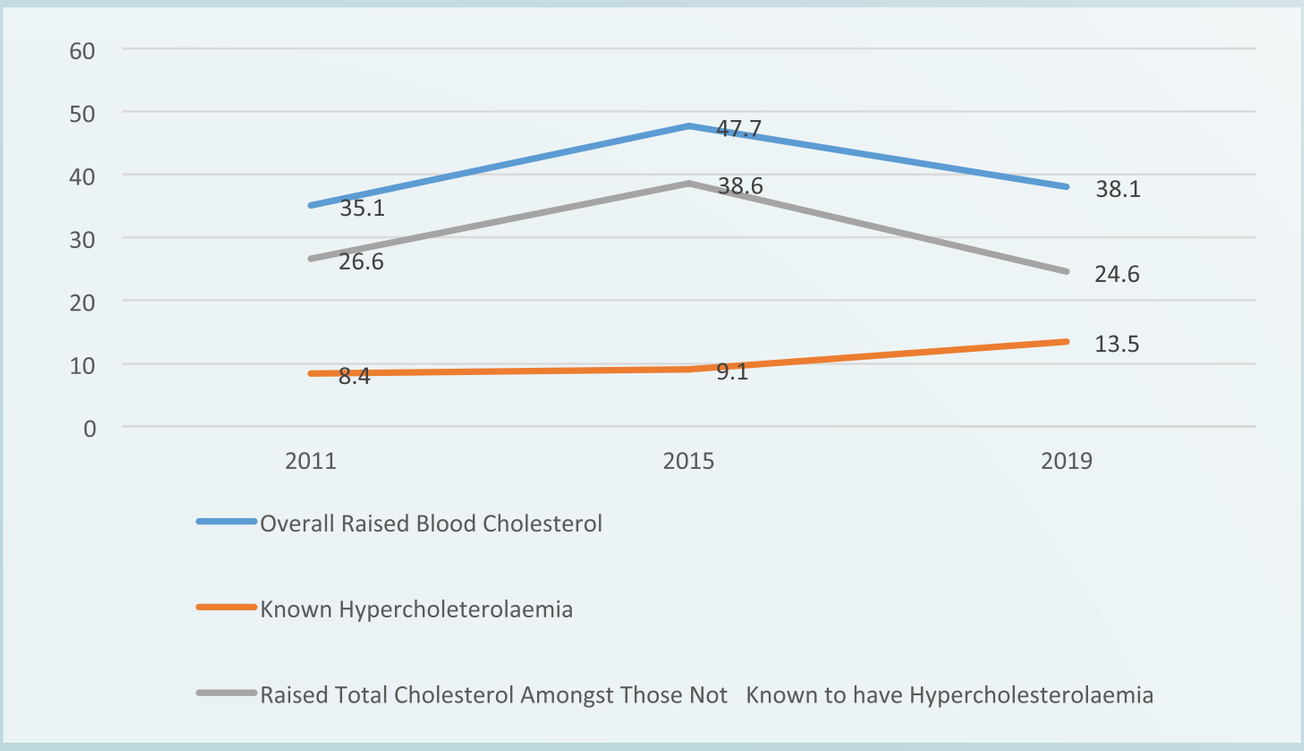

Figure 1: Hypercholesterolaemia Trend in Malaysia

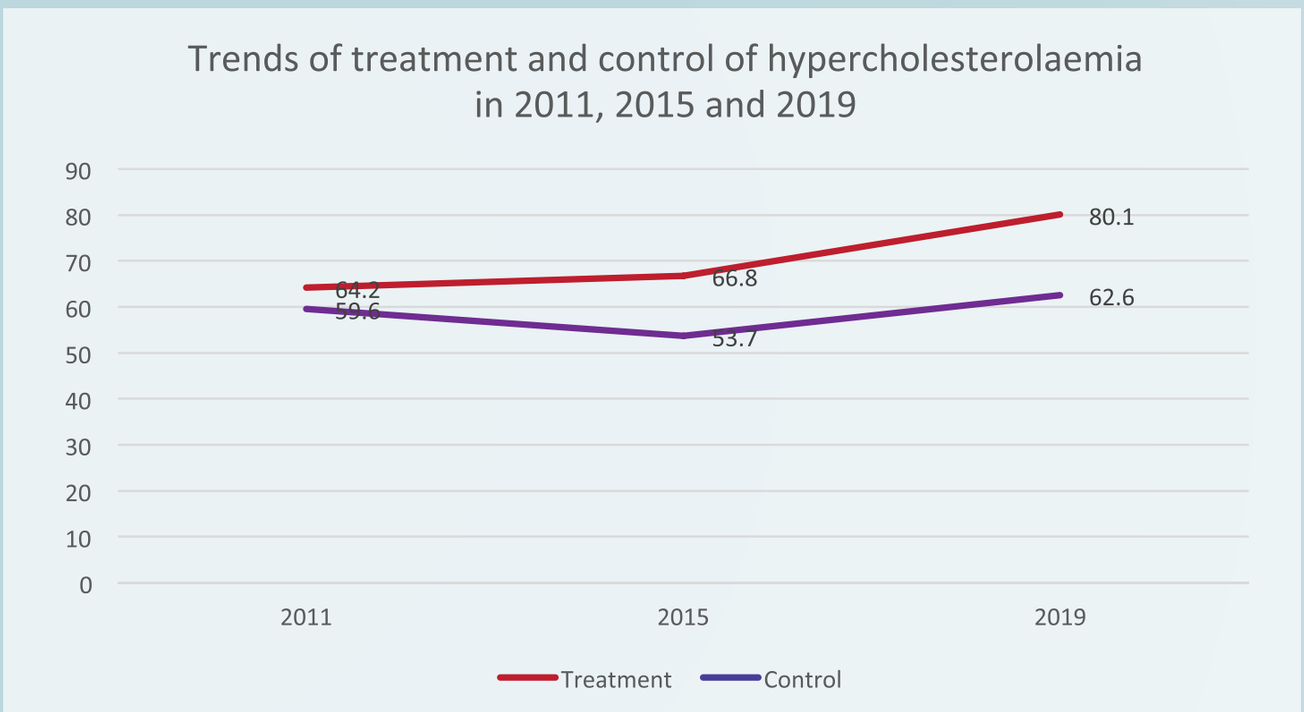

Figure 2: Trends of treatment and control of hypercholesterolaemia in 2011, 2015 and 2019

Table 1: Prevalence of Overall Hypercholesterolaemia for Respondent Aged 18 years and above for NHMS 2011, 2015 and 2019

		NHMS year		
Hypercholesterolaemia	Sociodemographic	2011	2015	2019
	Total	35.1%(33.9,36.2)	47.7 %(46.5, 48.9)	38.1%(36.2,40.0)
	Gender			
	Male	30.1%(28.7,31.6)	43.5%(42.0, 45.1)	32.0(29.7,34.4)
	Female	40.2%(38.7,41.7)	52.2%(50.7, 53.7)	44.5(42.2,46.8)
	Locality			
	Urban	34.3%(32.9,35.7)	47.7%(46.3,49.2)	38.0 (35.7,40.4)
	Rural	37.0%(35.1,39.0)	47.7%(45.6,49.7)	38.2 (35.5, 53.7)

CONCLUSION

There is a promising trend in hypercholesterolemia prevalence, treatment and known hypercholesterolaemia from 2011 through 2019. However, hypercholesterolemia control remains poor. The government and health authorities must intensify disease control intervention to achieve the desired cholesterol levels.

Keywords: Trends, hypercholesterolaemia, known hypercholesterolaemia, treatment, control, NHMS 2019

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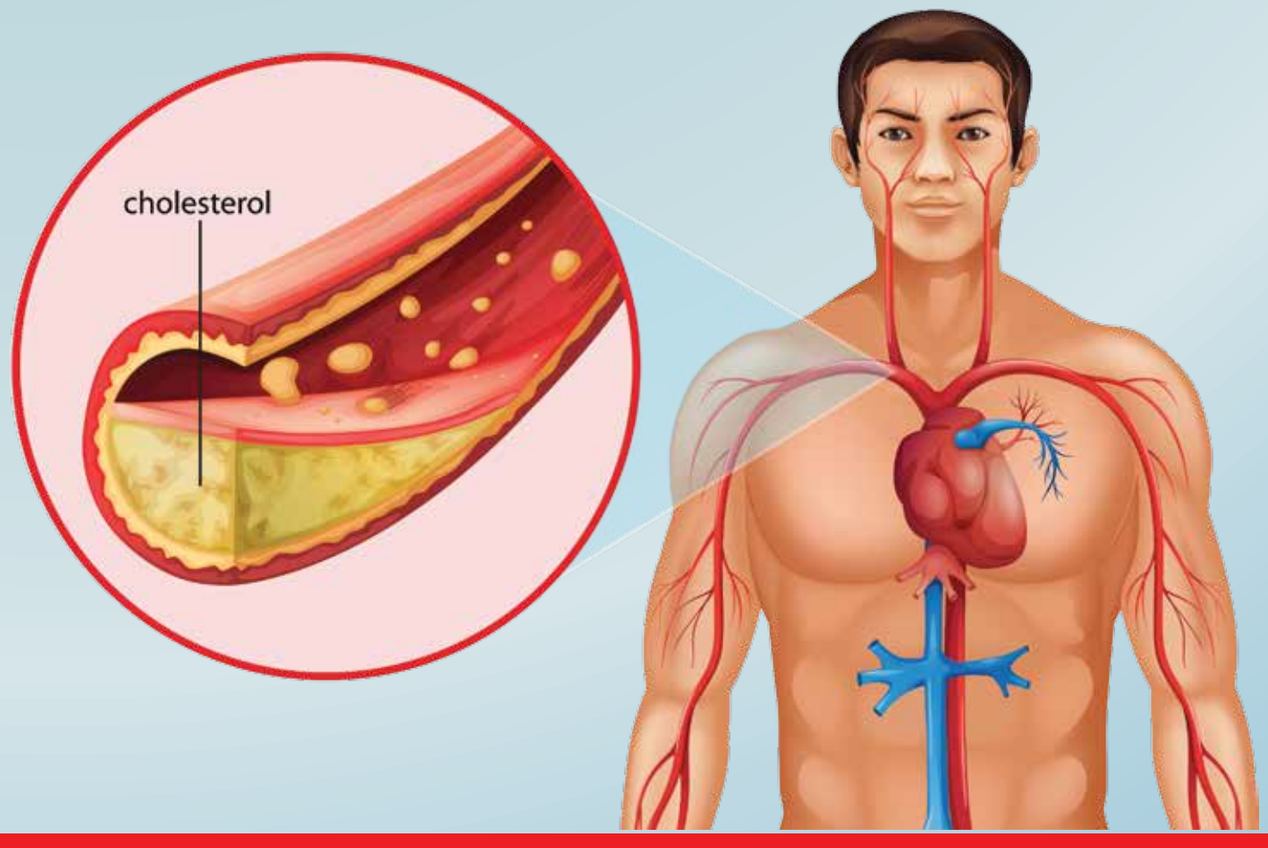

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