

The profile of coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia

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ABSTRACT

Background: Coronary heart disease is a deadly disease for human. The incidence of coronary heart disease is different, so that this research reported the profile of coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia. **Objective:** To analyze the profile of CHD patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia from February to September 2018. **Materials and Methods:** A descriptive research based on the medical records. **Results:** There were 65 male patients and 20 female patients. There were 58% patients aged 50-60 years old, 24% patients aged more than 60 years old, and 18% patients are under 50 years old. The patients' occupations were as follows: 42% civil servants, 36% private employees, 9% housewives, 5% retirees, 3% entrepreneurs, 1% for teacher, driver, fisherman, priest, and merchant. The complaints included chest pain (40%), shortness of breath (23.5%), PCI (4.6%), thump chest (1.2%), lower right abdominal pain (1.2%), right leg pain (1.2%), nausea (1.2%), vomiting (1.2%), cough (1.2%), dysentery (1.2%), and no complaint (23.5%). CHD patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia had the history of hypertension (30.6%), heart disease (22.6%), diabetes mellitus (21.9%), smoking (5.6%), COPD (0.8%), and no history of disease (12.9%). Sixty-one percent of the patients had blood sugar level of ≥ 100 mg/dl, 19% patients had blood sugar level of < 100 mg/dl, 20% patients did not have data. **Conclusion:** There were 85 patients, predominantly males of 50-60 years old. The most common occupation of the patients was civil servant and they came with major complaint of chest pain with the history of hypertension.



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BACKGROUND

Coronary heart disease or commonly called CHD is one of the deadly diseases for men and women. According to RISKESDAS in Indonesia (Basic Health Research) based on doctor's diagnosis, the prevalence of coronary heart disease in Indonesia in 2013 was 0.5% or estimated to be around 883,447 people. Most of the patients of CHD came from the province of East Java that is 375,127 people or 1.3% from the total patients (Niluh et al., 2016). In North Sulawesi, the incidence of coronary heart disease was 1,892 people or 0.7% of the population (Niluh et al., 2016). Symptoms commonly seen in patients with coronary heart disease are chest pain when doing strenuous activities, climbing or walking fast. In clinical examination, ischemia is found in patients with coronary heart disease. The pain spreads to the nape of the neck, back and left arm. Some cases of coronary heart disease are nausea, and loss of consciousness (Nadeem, et al., 2013). The incidence of coronary heart disease is not the same worldwide. Therefore, this research analyzed the patients' characteristics including age, sex, and main complaint of the patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia.

OBJECTIVE

To analyze the profile of coronary heart disease (CHD) patients who had been hospitalized in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia in January - September 2018.

MATERIALS AND METHODS

This was a descriptive study of secondary data of patient's medical record in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia in February - September 2018. There were 85 patients' data that matched the inclusion criteria. Data were grouped according to sex, age, type of work, main complaint, history of disease, and blood sugar level for analysis.

RESULTS

From 85 patients included in this study, the following results are shown below.

Table 1. Coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia.

Gender	Total	
	Frequency	Percentage
Men	65	76%
Women	20	24%
Total	85	100%

Based on Table 1, there were more male patients than female patients who suffer from coronary heart disease. There were 65 male patients (76%) and there were 20 female patients (24%).

Table 2. The age group of coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia

Age	Total	
	Frequency	Percentage
<50 years old	15	18%
50-60 years old	49	58%
>60 years old	21	24%
Total	85	100%

Based on Table 2, the group of patients aged between 50-60 years old is the majority of coronary heart disease patients. Group age of 50-60 years old comprised 49 people with a percentage of 58%. The group age of >60 years old comprised 21 people with a percentage of 24%. Then, age group of <50 years old is as many as 15 people with a percentage of 18%.

Table 3. Occupation of coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia

Occupations	Total	
	Frequency	Percentage
Public Servants	36	42%
Private Employee	31	36%
Housewife	8	9%
Retired	3	5%
Entrepreneur	2	3%
Teacher	1	1%
Driver	1	1%
Fisherman	1	1%
Priest	1	1%
Merchant	1	1%
Total	85	100%

Based on Table 3, coronary heart disease patients came from the group of civil servants as many as 36 people (42%), the group of private employees as many as 31 people (36%), the group of housewives as many as 8 people (9%), the retired group as many as 3 people (5%), entrepreneurial group as many as 2 people (3%), and sequentially there are groups of teachers, drivers, fishermen, priests and traders that each has as many as 1 person (1%).

Table 4. The complaints of coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia

Complaints	Total	Frequency
Chest Pain	34	40%
Shortness of Breath	20	23.5%
Pro Staging PCI	4	4.6%
Thump Chest	1	1.2%
Lower Right Abdominal Pain	1	1.2%
Right Leg Pain	1	1.2%
Vomitting	1	1.2%
Nausea	1	1.2%
Cough	1	1.2%
Dysentery	1	1.2%
No complaints	20	23.5%
Total	85	100%

Based on Table 4, there were 34 patients (40%) complaint about chest pain, 20 people (23.5%) complaint about shourtness of breath, 4 people (4.6%) have PCI intervention, and there are complaint about thump chest, leg pain, nausea, vomiting, coughing, dysentery each as many as 1 person (1.2%). Finally, there were 20 patients with no complaints (23.5%).

Based on Table 5, coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia have a history of hypertension as many as 38 people (30.6%), heart disease as many as 28 people (22.6%), diabetes mellitus as many as 26 people (21.9%), smoking as many as 7 people (5.6%), dyslipidemia as many as 4 people (3.2%), stroke as many as 3 people (2.4%), pulmonary TB and COPD as many as 1 person (0.8%). As many as 16 people (12.9%) did not have any history of disease.

Table 5. The history of disease of coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia

History of Disease	Total	Frequency
Hypertension	38	30.6%
Heart Disease	28	22.6%
Diabetes Mellitus	26	21.9%
Smoking	7	5.6%
Dislipidemia	4	3.2%
Stroke	3	2.4 %
TB	1	0.8%
COPD	1	0.8%
No History	16	12.9%
Total	124	100%

Table 6. The blood sugar levels of coronary heart disease patients in Dr. Soetomo General Academic Hospital, Surabaya, Indonesia

Blood Sugar Levels	Total	
	Frequency	Percentage
<100mg/dl	16	19%
≥100 mg/dl	52	61%
No Data	17	20%
Total	85	100%

DISCUSSION

We found that male patients compared to female patients had a ratio of 65:20. This was consistent with research conducted by Jamee et al (2013) where the male and female ratio was 120:35. In addition, Zahrawardani et al (2012) found that from 128 patients, there were 88 male patients and 40 female patients that were diagnosed with coronary heart disease. Research shows that although both sexes are equally susceptible to coronary heart disease, men are at higher risk of coronary heart disease than women due to lifestyle, smoking, and dietary habit.

Coronary heart disease affects most patients in the 50-60 years age group with a percentage of approximately 58%. This is in line with the research of Novriyanti and Usnizar (2014) where from 48 sample, there were 36 people aged 45-64 years that had a high risk of coronary heart disease. Moreover, Zainal Abidin (2012) found that the incidence of coronary heart disease mostly occurred in the age group of 46 - 65 years (87 cases, 65.9% of total patients).

It was found that most patients were civil servants. This was consistent with the study of Hadi et al (2017) where the highest incidence of CHD occurred among civil servants. However, our result was in contrast to the study of Salim and Nurrohmah (2013) who concluded that the non-worker group dominated the incidence of coronary heart disease with an incidence of 20 people.

It was found that the commonest main complaint of the patients was chest pain. This was in line with the research of Novriyanti and Usnizar (2014) in Tanjung Pura Regional Hospital in 2011-2012 where the patients suffered from chest pain achieved 77.1% from all cases.

In Syukri's study (2013) from a total sample of 86 coronary heart disease patients, 52 cases had a history of hypertension with a percentage of 55.32% where this was similar to what this research has found.

There were 52 patients who had blood sugar level ≥ 100 mg/dl. In the Simanjuntak study (2013) at Tanjung Pura Regional Hospital in 2011-2012, it was concluded that not all coronary heart disease patients had high sugar levels, although ones who had high blood sugar level predominated the statistics.

CONCLUSION

We found 85 patients, predominantly males of 50-60 age group. The commonest occupation of these patients was civil servant and they came with major complaints of chest pain with past history of hypertension and high blood levels.

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