

## Hereditary heart infarction in young age

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### Introduction

The rural district ("shire") of Norsjö in the county of Västerbotten has more cases of cardiovascular disease than the average municipalities (kommuner) of Sweden (1). Cardiovascular events strike preferentially members of certain families, with a background buzz of "isolated" or "random" cases (2).

### Method

Case report of a family, the pedigree of which suggests that male members are prone to suffer from heart infarct before the age of 50.

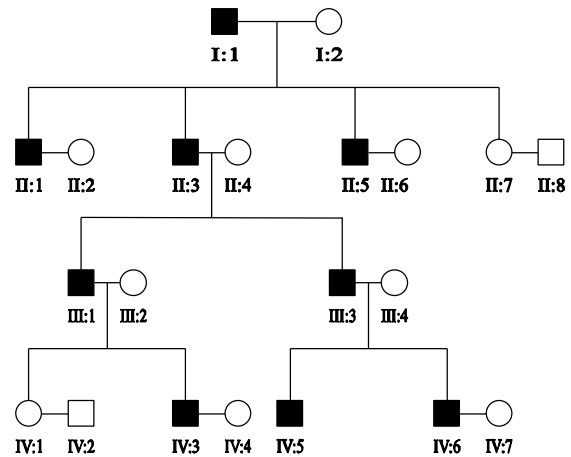
### Results

#### I:1

Farmer (freeholder), sudden death at 44. Daughter on phone 73 years later: "I remember nothing. I was about one year of age. I was told that he came slowly, sculling over the water, and walked slowly like an old man up to his cottage, and went to bed. Next morning, he was dead." Note of the priest in the death book of the national registration May 31, 1917: "Probably a heart death".

#### I:2

The wife of I:1 died at 67. A brother of her dropped dead at 60, while walking behind his hay-cart.



#### II:1

Farmer (freeholder). Achylia gastrica at 53. Angina pectoris at 60. Dead at 64, heart infarcts verified by autopsy. His patient chart stated that two brothers (II:3 and II:5) had died a heart death, with angina pectoris. His wife died at 91. His three children, now in the age range 66-69, are still healthy.

#### II:3

Miner. Sudden death at 35. The death certificate from June 1941 states "angina pectoris", the clinical diagnosis of the general practitioner. Autopsy protocol from the Department of Forensic Medicine, Umeå: "Myocarditis acuta, tracheobronchitis acuta, struma adenomatosa, insuff cordis". The family subsequently interpreted the event as a heart infarct. His wife died at 79 in "leukemia of elderly people".

#### II:5

Miner. Sick-listed due to "silicosis" and dead a few months later at 47. In the family, there were also statements about "heart disease" and "angina pectoris". Death certificate: "Infarctus myocardii? Myocarditis chron c angina pect". His wife died at 79. Among his children and grandchildren, no premature cardiovascular morbidity is known.

#### II:7

Died at 77. Her husband died att 55 after a traffic accident. Among her children and

grandchildren, no premature cardiovascular morbidity is known.

#### III:1

Teamster, sudden death at 48. Autopsy verified old and new heart infarcts. His wife is still alive, a healthy retirement pensioner.

#### III:3

Tractor driver, sudden death at 42. He was hospitalized twice for anterior heart infarcts prior to his death. His wife is still alive, a healthy retirement pensioner.

#### IV:3

Miner with minor disturbances of blood lipids and fibrinolysis and anterior heart infarct at 42.

#### IV:5

Factory worker with heart infarct at 27. Subsequently, he had minor disturbances in blood lipids, fibrinolysis, and methionine metabolism.

#### IV:6

Trucker with minor disturbances of blood lipids and fibrinolysis and a heart infarct at 32.

### **Summary**

The heredity of heart infarcts is complex (cf 1-3). In the family described, there are no obvious biological causes for premature cardiovascular events. Environment and life style might have contributed. Our observations are so far compatible with the hypothesis that cardiovascular diseases are of different etiology and pathogenesis with significant hereditary components.

### **References**

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