Obesity and smoking is widespread in patients with ischemia and heart failure, but not in congenital heart disease and heart transplant patients

Results from the national DenHeart survey

Selina Kikkenborg Berg[1], Lars Thrysøe[3], Margrethe Herning[2], Knud Juel[3], Ola Ekholm[3], Astrid Lauberg[5], Britt Borregaard[3], Anne Vinggaard Christensen[1], Jette Svanholm[4]

1. The Heart Centre, Rigshospitalet, Copenhagen University Hospital, Denmark, 2. Gentofte Hospital, Denmark, 3. Odense University Hospital, Denmark, 4. Aarhus University Hospital, Denmark, 5. Aalborg University Hospital, Denmark

Background

Lifestyle factors such as obesity and smoking play a large role in the development of several cardiac diseases. By identifying the diagnostic groups with the greatest challenges, targeted prevention efforts in the primary sector is possible. This is the first study to include an unselected national population of patients with heart disease across diagnostic groups.

Purpose

The purpose of this study was to investigate differences in lifestyle factors between cardiac diagnostic groups.

Methods

During one year all patients discharged from a national heart centre were invited to participate in a health survey. Patients answered questions about their height, weight, alcohol use, smoking, physical shape and medication adherence.
Questionnaire data was combined with national registers to obtain information on admission and diagnosis. Non-parametric tests were used for group comparisons.
The data collection was part of the DenHeart Study.

Results

A total of 14.040 patients across 7 diagnostic groups answered the questionnaire (response rate 51%). Mean age was 64.6 (SD 14.2), 64% male and 59% married. Responders vs. non-responders are comparable as to age, sex and diagnostic profile. Obesity (BMI>30) is most prevalent in heart failure (27%) and ischemic heart disease (26%). Ischemic heart disease has the highest prevalence of previous and daily smokers (73% and 15%). In patients with valve disease 10% drinks more alcohol than the national guidelines. Across diagnoses 33% rate their physical shape as less good or poor. Poor lifestyle indicators are less common in congenital heart disease and heart transplant. Medication non-adherence is not common among cardiac patients.

Limitations

The patients treated at the Heart Centers are often aged and severely ill, which may be reflected in the response rate of 51%. In general, unhealthy lifestyle behavior is known to be under-reported.

Conclusions

Poor lifestyle factors differs such as obesity, smoking and alcohol-intake across diagnostic groups. Patients with Ischemic heart disease have the highest BMI and the highest prevalence of smokers and among heart valve patients the highest prevalence of alcohol-intake above the daily limit is seen. It is important to incorporate this knowledge into prevention efforts in order to target interventions to the right patient groups.

Implication for practice

Current status of prevention efforts for cardiac patients aims at the same lifestyle factors for all diagnostic groups, but this study shows that it is important to target the different groups different, because of the different problems.
It is important to target interventions on weight and smoking cessation to patients with ischemic heart disease, whereas there is a need for more focus on alcohol habits in patients with heart valve disease.

	Ischemic heart disease	Arrythmia	Heart failure	Congenital heart disease	Infectious heart disease	Heart valve disease	Heart transplant	p**
n (total=13.918)	7,179	4,322	987	115	204	975	136	
BMI>25, number (%)	4,719 (70)	2,538 (63)	587 (64)	52 (46)	107 (57)	535 (59)	70 (55)	<0.0001
BMI>30, number (%)	1,729 (26)	934 (23)	247 (27)	16 (14)	26 (14)	185 (21)	23 (18)	<0.0001
Ever smoked, number (%)	5,118 (73)	2,575 (61)	680 (71)	56 (49)	119 (60)	593 (64)	75 (57)	<0.0001
Smokes daily, number (%)	1,060 (15)	471 (11)	110 (11)	11 (10)	24 (12)	73 (8)	6 (5)	<0.0001
Alcohol intake above the high risk limit,* number (%)	543 (8)	276 (7)	68 (8)	6 (6)	15 (8)	82 (10)	4 (3)	0,0323
Physical shape								
Less good or poor, number (%)	2,388 (34)	1,147 (27)	486 (50)	35 (31)	75 (38)	365 (38)	37 (28)	<0.0001
Forgetting medication prior to hospitalization								
Daily or more than once a week, number (%)	391 (6)	142 (4)	51 (6)	3 (4)	10 (7)	52 (6)	3 (2)	<0.0001

* The Danish National Board of Health has defined the high risk limit for alcohol consumption as 14 units per week for women and 21 units per week for men.
** Differences in proportions were tested using the Pearson chisquare-test.

Best
Middle
Worst

No declaration of interest

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