

Retrospective Analysis of the Prevalence of Metabolic Syndrome Among Cardiac and Non-cardiac Hospital Admissions

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Background: Metabolic syndrome (MS) has recently emerged as a likely culprit to account for the majority of cardiovascular events. Through multiple metabolic pathways, patients are placed in a pro-atherogenic state which leads to cardiovascular events. **Methods:** We performed a retrospective analysis on 708 patients admitted for both cardiovascular and non-cardiovascular maladies from July 2004 to June 2005. All data were collected from the hospital's electronic medical records system with all personally identifiable information hidden. Cholesterol profiles, smoking history, body mass index, and blood pressures were captured on each patient. BMI > 30 was used instead of waist circumference to calculate MS. **Results:** We collected data on 708 hospitalized patients consisting of 281 males and 427 females.

	CAD	Non CAD	p value
N	189	519	
Males	88	193	
Females	101	326	
Ave Age	63.8	56.5	<.05
BMI > 30	30%	33%	<.05
Smoker	23%	26%	NS
Systolic BP > 140	38%	33%	.7
Total Chol > 200	31%	29%	.53
HDL < 40	24%	29%	.08
Trig > 150	45%	35%	.4
No risk factors	20%	20%	NS
MS prevalence	66%	66%	NS

Conclusions: A staggering number of patients in both subgroups have metabolic syndrome. The prevalence of MS is likewise similar for both groups with no statistically significant differences. The only noteworthy variation between the groups is the average age and BMI, with the cardiovascular patients being an average of 7.3 years older and the Non CAD having more obesity. This suggests that all persons with metabolic syndrome are at increased risk for cardiovascular events, but clinical manifestations present later in life. Unrecognized metabolic syndrome is rampant and likely serves as the substrate for the marked increase with age of sudden cardiac events. These data highlight the importance of recognition of this syndrome as a high-risk marker for cardiovascular events.