

Heart Beats

Prevention Issue

Four Major Conventional Risk Factors

1. Cigarette Smoking
2. Diabetes
3. Hypertension
4. Hyperlipidemia

One or more of these risk factor exist in about 89% of patient who suffer a cardiac events.

Instead of looking for more risk factors to treat, we should concentrate on treating and preventing ourselves by treating the above major risk.

Khot et.al.JAMA 2003;290

Heart Attacks in younger Patient Have a Worse outcome.

The number of young adults having heart attacks increasing rapidly, and traditional risk factors were present in about 905 of the patients (smoking, family history, hypertension, diabetes, and high cholesterol).

In a study published recently, patients younger than 40 years, surprisingly have a high long term mortality rates. At 15 years, overall mortality was 31% for this age group.

Tobacco abuse, diabetes, and heart failure were significant predictors of worse outcome in this group of patients younger than 40 years.

Aggressive treatment including Angioplasty (PTCA) and CABG surgery led to significantly decrease mortality rates.

A focus on modifying risk factors is crucial for this population. Smoking cessation cannot be overstated, aggressive treatment of high cholesterol, blood pressure and diabetes is a necessity.

Clinician should on the other hand use every tool available including identifying the rare risk factors contributing to coronary disease in this group of patients.

Cardiology Review Jan 2004, Vol 21.

CRP: C-Reactive Protein Predict Cardiovascular Events

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Predicting cardiovascular event in middle-aged and older men and women, becoming crucial tool in reducing cardiac events, especially in patient who has average traditional risk factors.

C-Reactive protein is becoming a popular tool, and used more often lately based on the data supporting its importance in predicting cardiovascular events (MI and strokes).

C-Reactive protein and LDL-C (the bad cholesterol) were obtained in a 27,929 women participating in the Women's health study (WHS).

The patient with low LDL-c and low CRP had the lowest cardiac events, on the other hand

- High LDL-C and Low CRP or
- Low LDL-C and High CRP

Both had a 50% increase in cardiac events.

When CRP increased to more than 3 mg/L the relative risk increased tremendously.

The CRP level is a stronger predictor of cardiovascular events than the LDL-C level. This data make CRP an important predicting factor for cardiac events especially in women and older men.

Trial of statin treatment for high CRP is still pending. *N Engl J Med 2002, 347*

“Women should benefit from Aspirin as much as men”

‘Aspirin is crucial in diabetic patient as coronary disease patients’

Who should take aspirin to prevent coronary events?

Aspirin’s antiplatelet effect is proven beyond any doubt how helpful in preventing cardiovascular events in high risk patients.

Patients older than 55 years, who have diabetes, hypertension or high cholesterol, have a higher chance of cardiac events and should be on aspirin.

The current recommended dose is 75-150 mg per day (this dose showed the same benefit as the higher dose of 325 mg).

Aspirin should be considered unless there is a major contra indication.

Hormonal Replacement in Postmenopausal women.

“Overall health risks exceeded benefits from use of combined estrogen + progestin among healthy post menopausal women”

The Women’s health Initiative (WHI) studied about 160,000 women 50-79 years old for more than 5 years, with a combined treatment of estrogen and Progestin (HT) and came with the following summary:

- HT group had increased risk of breast cancer by 26%
- HT group had increased cardiac events by 29%
- HT group had increased chance of stroke by 41%
- No significant improvement in life quality post menopausal
- HT had a good effect to lower LDL-C (the bad cholesterol) and increase HDL-C (the good cholesterol)

The result indicate this regimen of combined therapy should not be initiated or continued for primary prevention.

WHI. JAMA 2002;288

Why we should eat more fish?



We should eat fish minimum once a week

Fish consumption decreases the risk of sudden death in men.

Fish consumption will decrease heart rate, reduce blood pressure, platelet reactivation, triglyceride, and inflammatory cytokines (which play a role in cardiovascular events).

It is suggested to eat fish minimum once a week.

dallongeville. Circulation 2003;108

Fish, omega-3 intake has a protective effect In diabetic women.

Long chain omega-3 fatty acid in different kind of fish was studied based on the kind and weight of fish meals.

Higher consumption of fish led to significant reduction in Coronary heart disease.

Cardiology Review Jan 2004Vol 21,No1

Effect of Exercise duration and Intensity on Weight Loss.

This study combined different length of exercise (walking) and diet to achieve weight loss.

At 12 month there was a correlation with weight loss and the level of physical activity.

- Women reported exercise less than 150 minutes a week had a mean weight loss of 4.7%
- Women reported exercise 150 minutes/week had 9.5 5 weight loss
- Women reported more than 200 minutes a

week had more than 13.6% weight loss.

Significant weight loss and improved fitness were achieved through a combination of exercise and diet during 12 months.

Jakicic JM , et al. JAMA 2003; 290



“The longer time and more intensify exercise the better”

Coffee consumption is it good?

In a large study of 41934 men and 84276 women from 1980 to 1998. The coffee consumption was assessed to see if it have any beneficial effect.

The data suggest that coffee consumption led to significant reduction in type 2 diabetes. This a major discovery could lead to different approach about coffee drinking.

Since type 2 diabetes has a close relationship with cardiovascular events, is coffee drinking has also that effect to reduce cardiac events or not. This question still to be answered.

Annals of Int Med, Jan 2004

We have to remember that coffee could have an adverse effect on heart rhythm in some patients we should not ignore.

“coffee could be better than it was thought”



Should every one be on statin?

Three large studies (Heart protection study, Ascots study, and Prove it study, with different medicine used, all led to same conclusion that the lower LDL-C (the bad cholesterol) the better.

This raise the big question if every one with some risk factors should be on statin, even if the total cholesterol and LDL-C are close to normal. There is no guideline yet about that, but definitely the trend toward being more aggressive in using statin is becoming more evident.

You should ask your doctor if you are not on statin if you are a candidate for it or not.

TCC Comments.



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