

Jefferson Cardiology Association Happenings

A Chronology of Coronary Disease

In this newsletter, there is frequent notice of recent research and events that may have interest and benefit for our coronary patients. In this issue, a brief history of the recognition, diagnosis and treatment of coronary disease will be presented. Emphasis will be placed on the dramatic course of events in the last 50 years.

Heberden first described angina in 1772. It took about 100 years for pathologists to identify the process that caused heart attacks. In 1879, Ludwig Hektoen concluded that a heart attack was caused by a clot in the coronary arteries secondary to hardening of these arteries. In 1910, two Russian physicians described five patients with heart attacks and their findings were confirmed at autopsy. Herrick, in 1919, promoted the concept of total bed rest for heart attack victims which was followed into the 1960s. By 1919, EKG technology was introduced to diagnose heart attacks.

Our current era was greatly helped by government activity. The National Heart Institute, now known as NHLBI, established the Framingham Heart Study in 1948 which has been a multidisciplinary effort to evaluate how heart disease developed in residents of Framingham, Massachusetts. From this study, the role of blood pressure, high cholesterol, and cigarette smoking was identified. This information led to physician education and subsequent treatment for these heart attack risk factors.

A major event reducing death from heart attacks was the establishment of coronary care units, CCU, in 1961.

Prior to that time, heart attack victims were scattered throughout a hospital. With the coming of the CCU, heart attack victims were placed together in a dedicated unit and heart rhythm was monitored by specially trained nurses. With the CCU, life-threatening heart rhythms could be identified and treated reducing cardiac death.

At about this time major therapeutic advances were made. Coronary arteriography was initiated in 1958 and beta blocker therapy was first introduced in 1962. The first coronary bypass was in 1969. Statin therapy was first described in 1976.

By 1970, hospital mortality for heart attack victims was 15% and another 10% died within the year after their heart attack. Laboratory research demonstrated that heart attack size could be reduced with the less mortality by restoring blood flow to blocked arteries. This led to research studies involving large numbers of patients. The Italian study, GISSI, involved 10,000 patients and demonstrated the benefit of the clot buster streptokinase. Subsequently sophisticated engineering led to better clot busters.

Balloon angioplasty of coronary arteries was described in 1979. The implantable cardiac defibrillator was developed in 1986 to prevent sudden death from potentially fatal rhythm disturbances.

By 1993, it was demonstrated that angioplasty and recently developed stents were superior to clot busters in treating heart attack victims. Subsequent development of drug-eluting stents nearly eliminated the problem of

restenosis, or return of blockage, seen with earlier balloon angioplasty. Also over this period, results of coronary bypass surgery improved with better technique and surgery became available to sicker patients previously rejected for surgery.

Devices have also improved. The development of biventricular pacing now permits patients with weakened heart muscle and disturbed conduction of electrical impulses to have improved coordination of muscle pumping and improved treatment of heart failure. The development of the left ventricular assist device can restore end-stage heart failure victims to a reasonable quality of life and stabilize persons whose only alternative was heart transplantation.

What lies ahead? The genome project offers opportunity for the future. Genetic codes can be identified clarifying an individual's risks for a number of medical problems. Genetic codes may also identify how individuals may respond to certain medications. To date, stem cell research has had mixed results but holds promise for the future.

Staff Birthdays

We would like to wish Dr. Inna Lamm, Jessica Capicotto, medical assistant, Debbie Lessman, receptionist extraordinaire (Happy 40th Debbie!), Denise Kowal, billing specialist, a very happy birthday! A special Happy Birthday to Chris Scott, billing supervisor, who is celebrating her 50th birthday on the bestest day ever...August 27th (good luck on your colonoscopy!!) Happy birthday to all!!

Peach Crumb

8 ripe peaches, peeled, pitted and sliced	Juice from 1 lemon
1/3 teaspoon ground cinnamon	1/4 teaspoon ground nutmeg
1/2 cup whole-wheat flour	1/4 cup packed dark brown sugar
2 tablespoons margarine, cut into thin slices	1/4 cup quick cooking oats

Preheat oven to 375 degrees. Lightly coat a 9-inch pie pan with cooking spray. Arrange peach slices in the prepared pie pan. Sprinkle with lemon juice, cinnamon and nutmeg.

In a small bowl, whisk together flour and brown sugar. With your fingers, crumble the margarine into the flour-sugar mixture. Add the oats and stir to mix evenly. Sprinkle the flour mixture on top of the peaches.

Bake until peaches are soft and the topping is browned, about 30 minutes. Cut into 8 even slices and serve warm.

Nutritional facts: Calories: 140; Protein: 2g; Carb: 26g; Cholesterol: 0mg; sodium: 40mg; Fiber: 3g; Fat: 3g; Sat Fat: trace; Potassium: 253mg; Calcium: 18mg

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