Abstracts

less than thirty-five seconds in whole plasma.

The therapeutic indications for dicumarol have not been established. Thromboembolism in cardiac patients is such an important cause of mortality and morbidity that every measure of control should be used. Dicumarol appears to be indicated in the following groups of cardiac patients: those presenting evidence of phlebothrombosis, thrombophlebitis or venous thromboembolism, and those confined to bed in whom successive prothrombin times reveal an acceleration of the dilute plasma time even if no definite signs of thrombosis are present.

The results are questionable in patients with auricular thrombosis and multiple emboli. Dicumarol probably is of no value in preventing or minimizing coronary thrombosis, but it is suggested that it be used during the first three weeks following severe myocardial infarction in an effort to prevent mural thrombosis or venous thrombosis. Dicumarol should never be used unless there are facilities for accurate daily estimation of prothrombin time. 38 references.

M. F. P.


Pulmonary embolism is more common in men than in women in a ratio of 3:2. The older age groups are more often affected. All embolic episodes occur most frequently in the fifth decade while fatal embolism was noted most often in the sixties. The type of operation is significant, most frequently following abdominal operations, gastrointestinal procedures and prostatectomy particularly.

Two peaks of fatal embolism were observed on the sixth and eleventh days postoperatively. The cardinal sign of minor embolism is pain in the chest. The ratio of pain on the right to that on the left is 5:3. Hemoptysis, friction rub, effusion and positive roentgenographic findings are characteristic signs.

Half of the cases died in less than ten minutes, three-fourths in less than thirty minutes and only 10 per cent lived more than one hour. Thus the most promising approach is prophylaxis.

Early ambulation may be the answer as a preventive measure easily applicable to the majority of surgical patients.

M. F. P.


That the cardiovascular system is influenced by anemia is generally recognized, but the extent to which the functional activity of the cardiovascular apparatus is affected by anemia is not so well appreciated.

In rapidly developed anemia, we deal with a failure of adjustments to the lack of oxygen transporting material, as well as with the effects produced by a sharp reduction in total blood volume. In cases in which serious cardiac damage is already present, coronary thrombosis or cardiac failure has been known to develop after severe hemorrhage.

It is to the cardiovascular manifestations associated with chronic anemia that the chief reference will be made here. The symptoms may be merely moderate dyspnea and palpitation or there may be tachycardia and precordial pain. Several cases are reported in which the initial and presenting complaint was congestive cardiac failure. Angina pectoris may be associated with pernicious anemia. Intermittent claudication as well as angina pectoris has been described in associa-
tion with anemia. The significance of anemia as precipitating the cardiac symptoms is shown by the symptomatic improvement following relief of the anemia.

The heart is often symmetrically enlarged and returns to normal when the anemia is relieved. Dilation as well as hypertrophy is a factor. It is likely that anemia of short duration produces dilation, whereas in long standing cases hypertrophy results. Systolic murmurs frequently develop. An apical murmur is most common. Diastolic murmurs occur only in very severe grades of anemia. The most common electrocardiographic alteration is a depression of the R–T (S–T) junction. These changes are nonspecific and resemble those in severe cardiac anoxia. Occasional conduction disturbances are noted.

Manifestations related to the cardiovascular system depend on many factors: (1) the degree of anemia, (2) the rapidity of development of anemia, (3) the age of the patient and the capacity of the cardiovascular system for adjustment, and (4) the previous state of the cardiovascular system.

The clinical evidences of an adjusting circulation in cases of anemia are found in a rapid heart rate, increased arterial pulsation, increased pulse pressure, and even capillary pulsation in the finger tips. The increase in cardiac rate and the velocity of blood flow result in a greater minute volume output. The circulation time is reduced. The falling viscosity of the blood, lowered arterial blood pressure and decreased peripheral resistance tend to reduce the work of the heart.

Increased oxygen utilization represents another means of physiologic adjustment. The increased circulatory rate is beneficial because oxygen is delivered at a higher pressure than would be possible otherwise. Thus the arteriovenous oxygen difference subsequently is reduced.

It is evident that the physiologic adjustments call for considerable encroachment on the reserves of the body. Further study is required to determine whether the physiologic adjustments take place in all types of anemia. Most of the studies have been made in pernicious anemia.

The remarkable changes found in the cardiovascular system in cases of sickle cell anemia may be the result of adjustments to a severe anemia of an exceptional chronicity. 26 references.

M. F. P.


During a diagnostic test with curare, it was noted that menstrual cramps were relieved. In cooperation with Dr. Cullen and Dr. Danielson, a series of treatments on hospital personnel was run. Good results were obtained in 50 per cent of the cases—that is, the patients were able to return to work within twenty to thirty minutes and continued normal activities with little or no discomfort. In one-third of the cases, there was no relief or such short relief as to make the use of curare impractical.

The necessity for parenteral administration of curare limits its usefulness. Within one minute of injection, the patient observes heaviness of the eyelids and fuzzy vision; these effects pass in five to ten minutes. Relief is immediate after injection of 50–100 mg. of curare.

The modus operandi is unknown. The drug may improve the circulation to the uterine musculature by its relaxing action on all skeletal muscles. It is believed to have no action on involuntary musculature.

Curare does not upset glandular function, is inexpensive and acts instantly. It is not habit forming.

M. F. P.