

heart. It must, however, be borne in mind that after exertion toxic substances are present in the blood and lymph stream, and it is well known physiologically that very severe symptoms can be produced by the injection into healthy animals of the products obtained from the blood and tissues of fatigued animals. Further, in the human subject cases are seen from time to time where very marked symptoms of toxæmia develop after very severe physical exercise. Thus for example convulsions and coma, or at any rate unconsciousness, may occur after very severe physical exertion, as for instance after a long bicycle race. Such a case has fallen under my own observation where a bicycle pacemaker immediately after very prolonged exertion suffered from high fever, fits, drowsiness amounting almost to coma, and where subsequently complete and rapid recovery took place. It is at any rate conceivable that the albuminuria seen after severe physical strain may be of toxic origin, although it must be admitted that such cases often present evidence of considerable cardiac dilatation.

The other and more common form of functional albuminuria, the so-called orthostatic variety, is a much more remarkable affection and one of great importance to the practitioner. At one time these so-called cases of functional or cyclical albuminuria were attributed to a great variety of causes, such as dietetic irregularities, cold bathing, etc., but it is now very generally recognized that at any rate the most common type of affection is that in which the albuminuria is definitely associated with posture and hence it is best termed postural or orthostatic albuminuria. In such a case the urine is free from albumin on rising in the morning, but often within twenty minutes of the assumption of the upright posture the urine becomes albuminous and remains so to a greater or less degree until the late afternoon when it diminishes. Usually, no doubt the amount of albumin, even when at its maximum at mid-day, is small. But cases are seen from time to time where quite large amounts are passed and no case should be excluded from the category of postural albuminuria merely on account of the large amount of albumin present. Diet has little or no effect on the quantity excreted, although such