

the coronary arteries and in consequence the organ fail to do its work, and very often without secondary warnings of its failing power. These are the cases which we most frequently hear of in connection with sudden death and consequently to be avoided by insurance companies.

Ailbutt has pointed out the liability to disease of the aorta and its valves with changes in the muscular substance of the heart itself amongst persons engaged in occupations requiring severe, sustained and oft-repeated muscular efforts in which all the muscles of the body are simultaneously engaged. The tension gives rise to a slow process of disorganisation leading to inadequacy of the aortic valves and occasionally, it has been supposed, to atheroma of the aorta itself and sometimes to aneurism. The aortic valves we know are frequently found affected in soldiers who are obliged to make forced and long marches. Similar conditions are also occasionally found in young men undergoing severe athletic strain as required in training for boat races and the like. We have also to bear in mind the possibility of syphilis being the direct cause of aortic murmurs. We know that it is a very frequent cause of aortic aneurism, and may thus at times account for a murmur heard in this region. I consider it therefore of importance that the possibility of applicants ever having had syphilis should be enquired into and noted accordingly.

Another important bearing in heart disease at times is the cause of death of other members of the family. Where we meet with two or more members of the family dying of cerebral apoplexy or Bright's disease and there are present in applicant any symptoms that would lead us to suspect sclerotic changes in the vessels, even in the absence of a murmur or signs of hypertrophy, it would be our duty to treat the case as an impaired life. I do not think that we know sufficient of the cause of heredity to altogether estimate a something indefinite that has been transmitted—whether it is a soil that allows of the easy development of gout from causes less effectual in other subjects. This may be simply a theory, but the experience of insurance companies is that with such histories they have more death claims to pay in which the cause of death has a direct bearing on such a family history.

Whilst the adventitious heart sounds to which I have referred are due entirely to endocardial abnormality, it is not improbable that some of them may be altogether exocardial. This question was raised by Sir William Gairdner at the British Medical Association in 1898. He quotes his experience in the post-mortem room in cases where heart disease was not the cause of death which showed the presence of patches in the pericardium, which we also have occasionally observed, and which he believes must have caused a murmur of some kind during life. If we were able positively to diagnose these conditions during life they would be no bar