

cases of it have been recorded. In one case a young girl contracted general tuberculosis from wearing the ear-rings which had been worn by a friend who had died of the disease. The disease is sometimes communicated through a slight wound while making a post mortem examination of the body of one who had died of tuberculosis.

HEREDITY

Will be most conveniently considered a little further on, in connection with predisposing causes of the disease.

ON THE PREDISPOSING OR MORE REMOTE CAUSES OF TUBERCULOSIS.

The tubercle bacillus although regarded as the immediate direct cause of tuberculosis will not develop in the animal organism and give rise to the characteristic symptoms of the disease except in certain conditions of this organism—except the soil be suitable. Hence it seems clear that certain other causes are essential and operate and have their effect in the production of the malady. These causes may be considered under the heads of (1) Heredity and (2) Personal Habits and the Conditions and Surroundings of life.

HEREDITY has long been regarded as a cause of tuberculosis. While it is undeniable that the disease is more common in certain families or strains than in others, there is still doubt as to whether this is only because of some special physical hereditary condition of the family or strain—some peculiar condition or structure of the cells or of the tissues or fluids of the body, either favorable to the nourishment of the bacillus or rendering the body unable to resist the inroads of the microbic parasite, or whether the bacillus is actually contained in the ovum of the parent and so becomes directly a parasite of the embryo and foetus in the womb of the parent.

Baumgarten it is said has in the case of the rabbit observed the bacillus within the ovum, and Prof. Johne, of Dresden, in an unborn foetal calf of seven months' intra-uterine growth, found numerous tubercles, showing that if the ovum had not been inoculated, the bacillus must have passed through the placenta (after birth), from the mother. Against the view of the infection of the ovum and embryo it has been urged that the disease-producing influence of the bacillus would prevent the development of the ovum, or destroy it.

It seems most probable that, usually at any rate, it is only the predisposition to the disease which is inherited; the predisposition consisting probably chiefly in a want of resisting stamina and vigor for repelling the invading bacillus—a natural morbid delicacy of tissue or constitution, yielding readily to the inroads of the parasite.

There is a considerable evidence favoring the view that in man the predisposition is largely due to a want of full respiratory capacity, from small contracted lungs and chest, with probably a small weak heart, and, so, a weak circulation. It has been found, and is a very common belief, that nearly all consumptives have relatively a small chest, and consequently small lungs, with probably a small heart. Moreover, in those predisposed to consumption the disease has often been apparently warded off or prevented by the greater development of the chest and lungs by means of vigorous, outdoor exercise and gymnastics.

Cows bred especially for giving an abundant flow of milk instead of for general robustness, highly fed, and given but little exercise which develops respiration, are the animals in which tuberculosis is most common. In this way a predisposition to the disease becomes hereditary.

PERSONAL HABITS, CONDITIONS OF LIFE, &C.:—Of the causes which may be enumerated under this head the principal are the following: Impure air—more especially air which has been once breathed, as in unventilated rooms; improper diet; excessive labor—mental or physical; deficient exercise or idleness; mental depression; improper clothing; intemperance in the use of spirituous liquors or any