## LECTURE.

## INFECTIOUS DISEASE.

## By Donald MacIntyre, Esg., M.D., D.P.H.

The lecture given by Dr. MacIntyre on Fever Nursing was well attended and proved very interesting. It dealt more with the history of infectious diseases than with actual treatment.

Dr. MacIntyre said that infectious diseases are not characterised by a very high temperature in spite of the term "fever cases." The term came down from older days when such fevers as typhus and relapsing fever were common, but these have now, for the most part, been stamped out. Infectious disease is a more suitable general term to use for such types of illness, because it means what it says. An attempt should be made to discriminate between contagious and infectious diseases, although there is no very sharp division. Influenza and measles are contagious and spread rapidly. Such diseases as erysipelas and scabies do not spread rapidly but they are infectious and can be carried by indirect contact, whereas the two former are carried by direct contact. The lecturer indicated how the air is made a carrier of infection and also enumerated diseases notifiable by law; he stated the measures taken by the medical officer of health on such notification, to trace the cause of an outbreak and limit its spread. It might perhaps be found that the water supply was contaminated or that a carrier was handling food.

In very early ages-the eighth and ninth centuries and down into the Middle Ages—we read that nations were often visited by famine and pestilence. Scarcity of food may seem a strange condition if we look at things from the standpoint of the present, but it is not so very long ago, after all, that, when a person had to make a journey, say, between London and Manchester, he had to choose between a horse and a rickety coach. The difficulty of transit, where food was concerned, was correspondingly difficult, and it is to be remembered that potatoes, now a staple article of diet, did not exist in England before the reign of Elizabeth. Barley and oats were the main foods and a bad harvest meant a famine. As for the pestilences cholera was common and other more or less similar diseases, for wells were defective and germs from neighbouring and equally defective drains or from sewage running in the street had easy access to the water. Black death, as it was called, was common in the eighth and tenth centuries, and it was never dreamt that the world was populated by anything smaller than the eye could see. Such disease, when it came, was regarded as a dispensation of Providence to punish sin. When a pestilence did occur, those who could left the town, and Elizabeth found an effective method of dealing with infection, for she departed to Windsor and had a gallows set up there for those who sought to follow her example and who might bring infection to the neighbourhood.

Information was given showing how a population might be almost wiped out of a town, and reference was made to the terrible effects resulting from cases of smallpox. Cholera, relapsing fever and typhus were also referred to. In connection with the Great Plague Dr. MacIntyre explained how this was due to rats, particularly the variety known as the black rat, and referred to the sanitary effects of the Great Fire. He also told of the cruelty associated with precautions to avoid infection in Edinburgh (where pigs, and not rats, were mainly responsible for the spread Those persons suspected of being possible of infection). carriers would be branded on the cheek and even hanged. Aberdeen put up its defences against the invasion of disease by erecting gibbets at its main entrances on which people attempting to enter the city were dealt with in a complete and summary manner. Also its escape from pestilence was pretty secure, for rats could not live in Aberdeen. (Laughter.)

Then, in 1776, Leeuwenhock, of Holland, first discovered the existence of bacilli, but did not connect them with the propagation of disease. The discovery in this direction was made by Pasteur in 1861, and to Lord Lister is due the credit of acting upon Pasteur's discoveries and of introducing antiseptic methods. Koch and others came forward with their contributions towards combating the action of bacilli.

It may be asked why, in the face of this, infectious disease has not been entirely banished. It is to be remembered that in Elizabeth's day the population of the country was four millions. Now it is forty millions, and so, when we come to percentages, the incidence of infectious disease has been most enormously reduced. Cholera is almost unknown, and it is the infection that arises from personal contact that occurs now because it is so difficult to control. Many people put faith in gargling with antiseptics, but this is not really effective. The mucous membrane of the throat is somewhat like the pile of velvet. The germs get down into the crypts of the membrane and are safe there from direct attack so that disease develops.

The lecturer referred to the tendency of people to crowd their houses with non-essentials of all sorts, to allow wallpapers with damp patches to remain, and to give harbour to germs in other ways. He also condemned the present fashion of long tapering and painted nails, remarking that the cat is the only animal that cultivates long nails, and so, when he saw a woman with long tapering nails, he was inclined to suspect that she was of a "catty" nature. (Laughter.) Long nails are a grave risk to the patient whose skin is in danger of being scratched and also they provide a harbour for germs, while the paint covers up dirt and so adds to its danger.

Dr. MacIntyre next referred to the carriers. A person may, for instance, retain, after an attack, the germs of diphtheria or typhoid in his body and he and they live happily together for he does not contract further attacks; he may even harbour these germs and so act as a carrier without having the disease at all and yet spread infection to others who do contract it. Reference was made to methods of immunising against diseases such as diphtheria and smallpox. The germs which produce typhoid are very limited in variety and so these also can be combated by inoculation. Many people seek inoculation against colds. Sometimes this is successful, oftener it is not, for there are about thirty-two types of germ that can produce the common cold and to inoculate against so many is impossible. At present the cause of infantile paralysis is unknown and the disease has established itself before it is recognised.

Dr. MacIntyre next enumerated the general requirements for nursing an infectious case, stressing the importance of cleanliness, fresh air, pleasant surroundings and careful observation and attention. A good nurse is more important than the doctor, and she it is who, through her conscientious and skilled attention, will pull many a patient, suffering from infectious disease, back from the gate of death and will protect him from complications liable to arise.

A cordial vote of thanks was carried in acknowledgment of Dr. MacIntyre's kindness to the Association in giving such a valuable lecture.

## LECTURES.

On Friday, 24th March, at 8 p.m. Dr. Clifford Hoyle will lecture on Tuberculosis, and on Wednesday, 19th April, at 3 p.m., Dr. Stevenson will lecture on "The Changing Outlook on Rheumatism."

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