

(September 17, 1930)

Cancer

By LORD MOYNIHAN

PRESIDENT HENDERSON:—Lord Moynihan, Mr. Prime Minister, Dr. Banting, and gentlemen, we feel that the Canadian Club is particularly honored today in having as their guest Lord Moynihan of Leeds, a man who has dedicated his life to the advancement of medical science. Ten years ago Dr. Banting and his associates of years in research made a very startling discovery which surprised the world. This discovery, the greatest discovery in medical science since the days of Pasteur, has been and will continue to be a great boon to mankind for all generations to come.

The citizens of Toronto have thought it fitting that a "Banting Research Fund" should be created. From this fund the building known as the "Banting Research Institute", built by the Ontario Government, has been endowed to honor Dr. Banting. This building was officially opened yesterday.

As we expected, a great group of medical men and surgical men from all over the world gathered for this opening, and it was particularly fitting that a man of Lord Moynihan's prominence in the surgical world should be the one officially to open the building. The opening of the building was a red letter day for Toronto and I believe for the whole medical world in general.

Lord Moynihan comes from good fighting stock. His father was a captain in the Imperial army and his sovereign saw fit to bestow on him the highest honor it was his privilege to bestow, namely the Victoria Cross. Lord Moynihan was Major General in the British army during the great war. He won his honors on the field of battle abroad and is now at home fighting against diseases for the well-being of

mankind. Lord Moynihan has chosen for his subject "Cancer." He has assured me he will not be technical and we laymen will understand him, and has intimated that even I should understand him. I have great pleasure in introducing Lord Moynihan of Leeds, President of the Royal College of Surgeons, England.

LORD MOYNIHAN:—Mr. Chairman and Prime Minister, the honor of whose presence I most cordially appreciate, and I would also add, Dr. Banting, if he feels that after the hard things I said to him yesterday we can still remain on speaking terms, the subject of my address today is "Cancer." If the law of averages holds good seventy people now in this room will die of cancer. I understand that there is quite a large number of people outside this room who are listening to what I have to say and may I also encourage them by saying that one in every seven over the age of thirty-five of those who are listening-in will die of cancer, unless someone comes along in the near future whom we may place side by side with Dr. Banting as one of the great rescuers of humanity from plague, the worst plague that mankind has ever known.

The mortality from cancer at home, and if I give you figures they will be the figures of the United Kingdom, is no less than fifty thousand deaths every year. In the United States I understand that one hundred and fifty thousand people die every year of cancer. The greatest statistician devoted to examination of this subject has ascertained, with an authority that none can deny, that no less than half a million people die every year of cancer in those civilized countries which keep public health statistics. If that is true, and it has been true for many years, think what the loss of life has been through this century; then compare that with the hideous and most tragic loss of life with which we were made only too familiar during the great war, and you will recognize the slaying diseases are the greatest menace to mankind. When you recall also that cancer has been known since the days of ancient Egypt, the very birth of time, so far as man's knowledge is concerned, and that year by year it has been taking its toll of mankind, I would ask you to think of the gravity of the problem which is confronting

the medical profession in dealing with this most dread disease.

The curious thing is that of all the great killing diseases, cancer is the only one which is on the increase. I have some figures here relative again to England which I should like to give you. I said a long time ago, that statistics may prove anything, even the truth, and I want to give you the official figures of England. Our general death rate in the last twenty years in the United Kingdom has fallen by thirty-two per cent. The death rate from tuberculosis has fallen by thirty-eight per cent. The infantile mortality has fallen by forty-five per cent. The cancer death rate has increased by twenty per cent. And in the last seventy-five years in our country the cancer mortality has increased five-fold. You may ask why this has happened and endeavor to explain it away; and different explanations of this increase are given. The first is that there is an increased expectation of life and therefore more people live to the cancer age. Within limits that is true. The general expectation of life has increased, but it is an increased expectation pertaining rather to younger people than to old. The general expectation of an increase of life of the people over fifty has very little altered in the last generation or so, and therefore the problem, that is in England, is still what to do with our children; the problem has not yet arisen as to what to do with our grand-parents.

Another explanation is that there is an increased accuracy of diagnosis of surgical conditions, and that therefore the apparent increase of cancer is not in truth the real increase in cancer. It is true that certain diseases are recognized now as cancer which a generation ago were not so recognized. But it is equally true that a great many diseases which were formally believed to be malignant and so entered on the Registrar General's statistic's, are no longer regarded as malignant. Many cases for example of chronic ulceration of the stomach were regarded as cancer, and that interesting disease which I was the first to recognize in Europe, was also labelled cancer of the large intestine, and so though there are many diseases which were called cancer which we now know are not cancer, there are, nevertheless, many

diseases not cancer which formerly were called so. And this enormous increase in the death rate from cancer exists in spite of the immense advances which have been made in surgery in consequence of the work of Lord Lister, whose portrait I unveiled yesterday. Operations today are more extensive, far more radical, far more safe, than ever they were, and they are far more effectual in curing cancer. I heard this morning that I had asserted not long ago that cancer was never cured. At the moment that was said I had in my pocket a letter from somebody in Toronto who said that twenty-seven and a half years ago I had operated upon him in Leeds for cancer, and that is by no means an exceptional record.

Cancer is cured by surgery.

That is to say, patients live so long that they have time to die of something else. And they also live so long that they may be sure they are entirely free from the disease.

Why are we so much in earnest in our campaign against cancer? In the life of a man, the greatest writer of all said that there were seven stages; the simpler mind of the surgeon recognizes three. There is a stage in which you prepare for your work in life by your education at school and at your university, by talking with men to learn from them something which builds up your knowledge into wisdom, and something which at last shows you it is neither knowledge nor wisdom that really matters but a man's character.

During that period of preparation, a man may take fifteen, twenty or twenty-five years; he may find eighty years not long enough. But the second period is the period of accomplishment, the time in a man's life when he settles down to what is his life's work. He becomes—especially, I hope, in Canada—the father of a large family to whom his responsibilities are great. He becomes—again I hope especially in Canada—a good citizen, working not only for the domestic circle but for the welfare of this great Dominion. He becomes a man in the fullest sense of the word. Then, when his work is accomplished, comes the third stage in which he has the right to a certain degree of leisure in which his faculties begin to

grow dim and in which his interests and his enthusiasms begin at last to wane. You must never reckon a man's age by the number of years he has lived. Reckon a man's age by his enthusiasms and then recognize that I am approaching adolescence.

Cancer is not only a great killer; cancer is a dirty fighter. It takes men just at the time when their lives are of most service to their family circle, in their professional or business life, and when their wisdom is of greatest value to the state. After all the greatest thing a man can be in this world in my judgment is not a great physician or a great lawyer or a great architect or a great writer but a great citizen. It is when a man is at his best for offering his service to his country, when he has got enough money to have the greater anxiety of his family a little lifted, when he can begin to give service to others outside his immediate circle, it is then this hideous enemy, cancer, seizes upon him, tortures and very often disfigures him. Do you wonder then that in England, in my particular country of Yorkshire, there was depression because of the condition of things, such utter misery at having to operate over and over again on a case too late that I decided, that in our part of the world at least, as you have decided for your part, that something really must be done?

I was more anxious that something really substantial should be done for the reason that surgery in connection with cancer has reached its limits. It is hardly possible that we can get a greater success from surgery in the future than the great masters of surgery attain today. Operations for cancer of the breast, for example, can never be made more extensive. They can hardly be made more successful. I am not distinguished from any other surgeon in this room, but I give my personal experience that in my life I have lost only one case of cancer of the breast from operation, and it is clear, therefore, that surgery alone can offer little further help. We are doing the very limit of what is possible? If that is so how are we going to change affairs?

In my opinion we can go no further along the road of progress in the eradication of cancer unless we have the help of the public. Professionally, we have reached the limits of

what we can do. We must have an educational campaign. We must make the public understand what cancer is and how best its great dangers can be met. In the second place we must undertake research. Research is a word which in many parts of the world is met with certain timidity. It sounds as if hideous experiments were undertaken and animal life subjected to torture. There is nothing of that sort anywhere in the world so far as my knowledge goes. But if there is one place in the whole world where the word research should be acclaimed by the multitude, it is surely this city of Toronto. One thing which I have learned which has pleased me more than I can say is that here in Toronto your research work has enlisted not only the spiritual but also the material support of the government, and, Mr. Prime Minister [addressing the Hon. Mr. Ferguson] I should like on behalf of my profession, and if I may assume even a wider sphere, I should like to say in the name of humanity, we offer you our most grateful appreciation.

The question of the education of the public is, of course, said to be surrounded with great difficulties. Religion and medicine are, I think, the twin daughters of magic. There is still something religious in a physician and spiritual in medicine, that is the right kind of medicine. Even today if any of you have this morning been so unfortunate as to consult your physician and have received from him a prescription, you will notice in the top left hand corner of the sheet of paper a curious hieroglyphic which looks as if a spider had got into the ink, escaped on the paper, and then been seized with epilepsy. That mark was really an invocation to the God Jupiter that he would bring blessings down on the multitudinous ingredients which are embodied in that prescription. You see there is a certain romance and a certain magic still attached to the practice of medicine and when I first announced in England that I intended to do what I could to educate the public, I was assailed with the utmost vehemence by my colleagues saying I should do a great deal of harm. I was told I should excite fear. Now I will ask you quite frankly, whether there is any fear in the world in the mind of any man or woman greater

than the fear of cancer today? It is impossible to increase the fear of cancer. Like many of you, I am sure, I may say that the only things in the world I fear are the things I do not understand. Ignorance is the great ingredient in fear, and if we can only rid people of that ignorance with regard to cancer we shall do a great deal to remove their sense of fear. If we tell them the truth about cancer it is the truth that will set them free. I have been told many times that I was frightening people to death. On the contrary I have frightened many people to life.

I gave the first Hastings lecture, delivered before the public in England in connection with the British Medical Association. As a consequence of the publication of that lecture of mine in *The Times* newspaper, we were able directly to trace eleven women with cancer of the breast who consulted their doctors within a week. One of them turned up at my own clinic. A lady who had been reading *The Times* said to her husband, "I wonder whether I have anything the matter?" She felt her breast and found a lump. She saw a doctor. Next morning I removed her breast for cancer. And there were eleven whom we traced to that publication. May I say that on that occasion at least I had frightened people to life.

Cancer may most truthfully be described as the "King of Terrors." Knowledge with regard to cancer will remove a great deal of our fear with regard to it. But when the medical profession attempts to lay the matter before the public in other countries than Canada, there is a very considerable degree of apathy. Such examples occur with us in England in connection with tuberculosis in milk. Tuberculosis and its treatment cost us in England £96,000,000 a year, and at least eighty per cent of the surgical tuberculosis with which we have to deal is preventable. What happens if there are tuberculous cows, whose disease is either not apparent or concealed? The tubercle is conveyed in the milk to the large cities. It is there put into the best culture medium that you can possibly find for tubercle bacilli, the bodies of young and growing children, who are placed in what in technical language is known as an incubator but in ordinary language is called a slum. You put

your bacillus into a perfect medium and grow tuberculosis and we spend £96,000,000 a year trying to catch up with that disease, a large part of which we have ourselves implanted in the bodies of children.

So with malaria. Owing to the researches of Dr. Ross, and others we know the secret of that disease. It is not bad air but the bite of the mosquito which gives malaria. No place in the world need have malaria that doesn't wish it. The profession cannot talk to the public on the subject of vaccination. We find in our country people who are skeptical and yet it is the truth that nobody need have smallpox unless he wishes to have it. You see the point I am trying to make is that the medical profession knows certain things and it is willing to tell the public, but there is a great deal of apathy on the part of the public and its representatives in accepting and acting upon the information we give them.

Then there is the amazing credulity of the public. I looked through a certain number of the papers in this country and I notice an absence of the kind of advertising that appears in a great many of our sheets at home, advertising of pills, potions and the other things which the quacks have for disposal. Now it is a very curious thing how people will believe the ignorant and irresponsible quack rather than an intelligent and trained physician. But of course there are examples even from the oldest times. Dr. Cody will recall the fact that when the captain of the hosto of the King of Syria was stricken with leprosy and consulted Elisha, the prescription was he should bathe seven times in Jordan, and then, with his narrow Chauvinism, he said, Are not the rivers of Damascus better than all the waters of Israel? But you see the quack remedy did not act. He had to go and get the right kind of treatment before he was cured. Then there is the incredulity of people, like the gentleman to whom I referred just now who thought cancer never was cured.

One of the unfortunate things about the medical profession is, I think, that its work is really either unknown to, or ill appreciated by the public. Montaigne whom I have with the Bible and one or two other books, always at

my bedside, that well of wit and wisdom, said that a doctor was of all men one of the most to be envied because the sun shone upon his successes while his failures were hidden in the tomb. But I would ask you to contradict that statement out of your own knowledge. You know that every doctor knows many people who have been so long free from cancer after removal that it is fair to say they are cured. Do you ever find them speaking about it, acknowledging it, or encouraging other people who have cancer. If a man has cancer he looks upon it as if he had some moral defect or insanity in his family and therefore is most unwilling to mention it. I think those who have been resurrected from death should now and again, at any rate, speak of the work which has been wrought upon them.

In matters of this kind I am sure our views of cancer must be optimistic. I do not want to distinguish myself for a moment from any other surgeon in this room, but I have a few figures here in connection with cases of cancer of the breast that show the absolute necessity of educating those who suffer or are likely to suffer from cancer. My early cases of cancer of the breast were examined three years, five years and ten years after operation. At the end of three years after operation eighty-eight per cent of the people were living, and well and without recurrence. At the end of five years eighty-seven per cent of women were alive and well, without recurrence. At the end of ten years, seventy-seven per cent were alive and well without recurrence. And when you have regard to the age at which these operations are done and take into account what would be the death rate in ordinary circumstances, when you find seventy-seven per cent of people at that age live and are without recurrence, I think it is fair to ask you to be optimistic with regard to the early treatment of cancer of the breast.

May I give you the results of the late cases, and by late cases I mean those in which the growth extended beyond the breast? At the end of three years, only twenty-five per cent were well and alive. At the end of five years only three per cent were alive and well. And at ten years there was not one single individual alive. If you will only realize

the difference between the treatment of the early case and the treatment of the late case, you will agree that it must be by the education of the public so that we can understand that *cancer in its early stages is curable*. Will you not agree that education of the public is the only way in which the surgeon can improve his results. And ought we not also to inscribe optimism rather than pessimism upon our banners? I never knew of pessimism being inscribed on the banner of a conqueror.

May I tell you in a few minutes some truths about which every surgeon in the world will agree in regard to cancer. In the first place cancer is always primarily a local disease. It always begins in the one place. It never begins as a blood condition affecting first one place and then the other. That is the most undeniable truth with regard to cancer. It is always at first a local disease. And secondly that where it is local and accessible to the surgeon it is in every single case a curable disease. In the third place that cancer very rarely attacks a healthy organ. There are some surgeons who say it never attacks a healthy organ. I am not sure. But very rarely indeed will cancer attack a healthy organ. What is the moral from that? The moral is you should keep yourself as fit as you can; keep all your organs working.

Most people in this world commit suicide. Do you realize what that means. It is absolutely true. When I said it the first time our professor of Pathology who was in Toronto last night, Professor Matthews, one of the greatest pathologists we have in England, came and said, "I am often scared by the things you say but they turn out to be true when I examine them. But I really can hardly believe that it is true most people commit suicide." I said; "That is all right; take a few minutes and think it over, and then tell me what you think." He came back very quickly and said, "It is quite right. The great majority of people in this world commit suicide." The moral of that of course is, use your faculties and all your organs as well as you can. Regard yourself as a machine which it is your business to keep in order, and make here and now a vow that whatever else you do you will not commit suicide.

The next thing I want to say is that cancer has certain definitely known antecedents. The great predecessor of mine in the chair, Sir John Bland Sutton, was the first to point out pre-cancerous conditions, the result of chronic irritation and so forth, and when those conditions are present cancer is preventable if the pre-cancerous conditions are removed. We know there are conditions which influence cancer and certain conditions which do not influence cancer. Chronic irritation is in a sense a cause of cancer but we recognize no connection except in a general sense between any form of diet and cancer.

There is nothing in the supposed heredity of cancer. In Chicago an effort has been made to work out in hundreds of thousands of cases some sort of malignant strain. We have never yet been able to trace anything of that sort. There is no family probably, on the law of averages, which escapes cancer in say three succeeding generations. Cancer is a common disease and people think it hereditary because it happens frequently, but as far as we know there is no influence of heredity upon the recurrence of cancer.

Cancer is neither infectious nor contagious. You can live with and sleep next door to anybody with cancer without fear of contamination. And lastly, the onset of cancer, and this is the unsatisfactory feature, is almost always painless. I once said that if I might be quite sure of having one prayer answered it would be that the onset of cancer caused pain. I was accused of being heartless. If you will only think you will see, if only cancer caused pain in the early stage, and if pain sent the sufferer to a physician, that the mortality from cancer would be at once immensely diminished.

But the difficulty is that although in many cases it takes organs easily accessible, it also takes organs which are not easily accessible. But during the last few years we have practised surgery which allows us to get into contact with organs that it is impossible to remove. Here radium is coming to our help. It is too early to speak with any confident authority upon the subject of the treatment of cancer by radium. I will only say, so far as my experience goes in regard to treating malignant disease with radium, we are

getting results that five or six years ago I would not have thought possible. I do not want to offer one single ray of hope that is not justified. But I do feel that a whole new field of surgical treatment of cancer by radium is coming into existence. I have given you figures for cancer of the breast. My colleague, Mr. Cheatele of St. Barthelomews hospital, is treating cancer of the breast and has been for five years, treating cancer of the breast with radium, and we are getting results which five years ago would have been quite incredible. Therefore, when we know the secret of the application of radium, the dose we should give, the length of exposure, the frequency with which applied; and a multitude of other things, including the character of the reaction to radium that we may have, I believe we shall have a great additional weapon for the treatment of inaccessible cancer. Radium does not yet and may never replace surgery, but for cases of inaccessible cancer a very great prospect is being held out.

And then the other method of approach to this grave question is the method of research, research into every aspect of cancer, methods of treatment, relative values, etc., and the methods of research which will be carried out in research buildings like the Banting Institute. I can hardly tell you what the value of research has been to the world in the last twenty-five or thirty years. I have figures here which show the result of the work of my friend Sir Almroth Wright in connection with typhoid fever, and if you are interested I will read these figures bearing on the South African war. We had five hundred and thirty thousand troops in South Africa. We had fifty-seven thousand six hundred and eighty-four cases of typhoid fever. We had eight thousand and twenty-two deaths. And then Sir Almroth Wright came along with preventative inoculation for typhoid fever. We were never allowed compulsorily to vaccinate Tommy Atkins. But Tommy Atkins, the real man who won the war, is one of the best fellows alive and full of sense, and when it was explained to him that typhoid was preventable, ninety-eight point something per cent of our troops were voluntarily inoculated against typhoid. In the last war we

had six million troops engaged and we had twenty thousand cases of typhoid fever but only one thousand one hundred and ninety-one deaths. Sir Almroth Wright saved to the British army not less than a couple of army corps by his methods of preventive inoculation of typhoid fever. The French had one hundred and thirteen thousand four hundred and fifty six cases with twelve thousand three hundred and ninety deaths. Does not that show you, if figures can ever show anything, the value of preventive inoculation for typhoid?

Wouldn't it be wonderful if the research which will give us command of cancer were carried on at the Banting Institute in Toronto? It will be by research carried out somewhere that the secret of cancer will at last be solved, and you can be sure of one thing, discoveries of this kind never come by way of chance. It is never chance. It is always by the devotion of one mind to the problem, the observation of one mind in the problem, that great discoveries at last are made. As I have said already in speaking of Dr. Banting, this is how dreams come true, and somebody must have a dream about the cause of cancer and then incite the research which at last will lead to the discovery of the cause of cancer. If I could have one more prayer answered it should be that the cause of cancer and its cure might be discovered in this city of Toronto.