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THE MOSCOW, HARROGATE AND MONTREAL CONGRESSES, 1962

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Three congresses of particular interest to radiologists and workers in the field of cancer were held between the last week of July and the end of August 1962.

The first of these congresses, and the one which attracted most interest, was the International Cancer Congress in Moscow (23 - 28 July 1962).

EIGHTH INTERNATIONAL CANCER CONGRESS — MOSCOW

Cancer congresses have been increasing in importance and in size since the first congress after the War was held in 1947 in St. Louis, USA. At that congress, all the meetings and most of the members were accommodated in one hotel. At the next congress, in Paris in 1950, the numbers had increased, but the congress could still be accommodated without any great difficulty.

Those attending the Moscow Congress, reported to be between 4,000 and 5,000 full members, with a large number of associate members, were still accommodated in one building, the enormous University of Moscow. It is doubtful whether this congress could have been held anywhere else, considering the numbers, without having had to be split up into several different halls, as the International Congress of Radiation Research at Harrogate, and the International Congress of Radiology at Montreal, which will be described later, had to be.

It says a great deal for the organizing ability of the Russian authorities that the huge cancer congress went off so well. It was a simple matter to go from one hall to another for the lectures, of which there were about eight being given at the same time. The difficulty was that because of the many hundreds of papers it was only possible to hear a very small proportion of them being read. This is a fault with all modern congresses, and ways and means have to be found to make them more manageable.

South African Doctors at the Congress

A point of great interest, and I hope significance, as far as the cancer congress is concerned, was the large number of South Africans who attended compared to previous cancer congresses. At the St. Louis cancer congress in 1947, only two South Africans were present. I was the delegate of the National Cancer Association, and Dr. Lionel Cohen, who happened to be a student in the USA at the time, was the other South African there.

At the cancer congress of the chemical section of the American Cancer Association at New London, New England, in 1947, I was again the only delegate and, similarly, at the cancer congress in Paris in 1950, I was the only South African representative.

The more recent congresses were better attended, particularly that held in London in 1958, when there were three delegates from the National Cancer Association (NCA), and altogether nine South Africans attended.

At the Moscow congress there were over 20 members from South Africa. Apart from the three official delegates of the NCA, Dr. L. S. Robertson, Prof. J. F. Murray and myself, there were a number whom the NCA helped financially to attend the congress. Apart from these, some notable South African medical personalities attended.

In the great throng of members it was impossible, without previous arrangement, to pin-point any one South African delegate whom one may have wanted to see, and it was with pleasure and pride that I saw the heads of Prof. H. W. Snyman and Mr. C. A. R. Schulenburg above the throng — two worthy representatives of Pretoria and South Africa. Other medical personalities were Prof. James T. Louw of Cape Town, and Drs. G. Dean, E. Colley and A. W. Stewart of Port Elizabeth. I mention these doctors and those from Pretoria because they are not directly associated with the NCA, although it is my hope that they will now take a greater interest in it.

Others, who were directly associated with the NCA, even though they were not national delegates, included Prof. J. Muir Grieve of Cape Town, Dr. H. A. Shapiro, editor of the *South African Cancer Bulletin* and Dr. Max Shapiro. Dr. L. Cohen of Johannesburg was also present.

Papers Presented

There were a number of contributions from South Africans. Professor Murray spoke twice, once on his own behalf and the second time on behalf of Dr. A. G. Oettlé, who could not carry out his original intention of being present. Dr. G. Falkson spoke on chemotherapy as practised in Professor Snyman's Department in Pretoria, Dr. Dean read a paper on the incidence of bronchial carcinoma in various White groups in South Africa; Dr. C. Hurwitz contributed a paper on the incidence of pulmonary cancer among African mine-workers on the Rand; Dr. Annabella Cohen, wife of Dr. Lionel Cohen of Johannesburg, spoke on radiosensitivity of methylcholanthrene-induced sarcoma in C3H mice; and a notable contribution was made by Professor Grieve of Cape Town on the relative incidence of cancer among the various racial groups in Cape Town. Professor Grieve had been carrying out this reseach with a whole team of special workers, supported by a grant from the NCA during the last five years.

This contribution was in the form of an exhibition, since the paper was far too long to be published in the proceedings of the congress. The exhibition, one of the best at the congress, aroused a good deal of interest. It was excellently designed and must have involved Professor Grieve in a great deal of work.

The NCA has spent a considerable amount of money on various epidemiological surveys — in Cape Town by Professor Grieve, in the Ciskei and the Transkei by Dr. R. J. W. Burrell, and in Lourenço Marques by Professor Prates, while Dr. Oettlé, a research fellow of the NCA, has done a good deal of work on the epidemiology of cancer in various parts of Africa. His time is also occupied with other cancer research projects.

Apart from these papers, many post-congress talks were given by South African members. Mr. Schulenburg, Professor Grieve, Dr. Hurwitz, Professor Murray, and the President of the NCA, Dr. Robertson, all addressed various societies and organizations interested in the Moscow congress.

While it is true that the glamour of Moscow no doubt played a considerable part in attracting so many members from South Africa, I hope that interest in future cancer congresses and in the NCA will be maintained. I hope, too, that even a larger number will attend the next Congress to be held in 1966 in Japan, and that the NCA will find the money to help even more people with an interest in cancer to attend. This is my own personal view and, although Dr. Robertson is sympathetic, the NCA is unfortunately limited in the amount of money it can devote to this. Perhaps its finances will have improved by 1966.

Russian Radiology

It would be absurd and, in fact, impossible to venture an opinion on diagnostic or therapeutic radiology in Russia after only a few days' stay in Moscow. Unfortunately, I could not take part in the various excursions to other centres in Russia because of other commitments on the Continent and because I had to attend the congress in Harrogate.

In any case, the congresses are so organized that it is next to impossible to visit sufficient hospitals to form an opinion and also, at the same time, attend the lectures and demonstrations, which is the main purpose of going to a congress.

In a hospital in Moscow which, I was informed, was the

main radiological research hospital, I did not see anything startling, either on the diagnostic or the therapeutic side. There was nothing unusual in the diagnostic apparatus; the equipment was mainly of foreign manufacture, and there were no modern tomographs, for instance of the Massio or 'pluristrator' types. The tomograph in this particular hospital was the Dana. On the therapy side, the Russians now make a betatron, and there was one at this hospital. It was of the 30 MeV type. I understood that a number of these betatrons are now in operation in various parts of Russia.

In the very large Russian exhibition of apparatus at Geneva in 1959, the models of hospitals indicated that the Russians were concentrating on the 400 c. cobalt bomb; I thought that this was because they were short of cobalt. They now make a very large cobalt bomb, with a rotating head containing up to some 3,000 c. of cobalt. The actual cobalt machine is very massive, and was on view at the Gorki Exhibition Park. The head with the cobalt source travelled in two directions — the main arm holding the cobalt head moved at right angles to the length of the couch, but the head itself also moved at right angles to the traverse of the main arm. There were no isodose charts to be seen, but the complicated movement must have required a great deal of phantom work to establish isodose curves.

The 250 kv. range of apparatus all appeared to be of foreign manufacture. I must stress again that these remarks are based on a minimal amount of experience of hospitals in Russia as a whole, but if what is reputed to be the main hospital in Moscow, as far as diagnostic and therapeutic radiology are concerned, has this apparatus, then one can get some indication of what conditions must be like elsewhere in Russia. The X-ray department itself was a converted old house and quite unlike the modern X-ray department as we know it.

Judging from the abstracts of the papers read at the congress, the Russians have devoted a great deal of research to cancer chemotherapy. No epoch-making discovery in this field was announced, or reported, however.

SECOND INTERNATIONAL CONGRESS OF RADIATION RESEARCH — HARROGATE

The second congress of interest to radiologists and to cancer workers was the Second International Congress of Radiation Research at Harrogate from 5 to 11 August 1962. This congress, attended by many distinguished radiobiologists and physicists, but relatively few radiotherapists, was also crowded, and there were not enough hotels in Harrogate to put up all the members. Some important members had to stay at hotels some distance away, and traffic arrangements to these outlying places from Harrogate were not good. It must be recalled that Harrogate is a holiday resort and spa, and the congress was held in the middle of the holiday season. This is one of the difficulties with all the congresses. They are held during the summer months and there are normally a large number of foreign visitors at the various places where the congresses are held.

It was announced in the British press that a convention hall, to cost some 8 - 10 million pounds, is being planned for London. This, in due course, should prove a great boon to all British congresses, both national and international. It seems odd that so many countries have built special stadiums and towns for the Olympic Games, and yet nothing similar has been done for scientific and medical congresses. It is hoped that this convention hall in London will rectify matters.

There was a great drop in the attendance of South African members at this congress, as was to be expected. There are no people professionally engaged in full-time radiobiological research and, although we have increasing room for physicists in South Africa, both senior and junior, it is doubtful whether they number a dozen. Those interested in radiotherapy only are also very limited and, in fact, the total representation from South Africa consisted of two members, Dr. Lionel Cohen and myself, but there were three other South Africans who are not at present working in South Africa. There were two from Puerto Rico, and Dr. Tikvah Alper, who formerly worked for the Council for Scientific and Industrial Research, was the Secretary of the organizing committee of the congress.

This congress, because of the conditions in Harrogate, had to hold meetings at quite a number of hotels at the afternoon sessions. The morning sessions, that is, the symposia, were well organized, and an excellent feature was the system of rapporteurs.

The contributors to each symposium did not read their papers — they sat on the platform while the rapporteur summarized and discussed their papers. Questions after the rapporteur had given his summary for about ¾ - 1 hour were then addressed to the contributors of the papers. This system is excellent and could have been carried a step further by having the rapporteur's discussion cyclostyled before the meeting. I understand the difficulty in getting this done was because some of the contributors sent in their papers only a day or two before the congress opened. In view of the difficulty in modern congresses of hearing more than a small proportion of the papers, because of the impossibility of getting from one hall to another in time, having the papers printed in advance would be a great boon.

The symposia and the various papers were of a high order. The abstracts have been published in book form and the papers are to be published later. Those interested in the volume of abstracts should apply to: Silver End Documentary Publications, Ltd., 9 - 11 Tottenham Street, London, W.1., England.

TENTH INTERNATIONAL CONGRESS OF RADIOLOGY — MONTREAL

At this congress (26 August - 1 September 1962) there were only four delegates from South Africa, Prof. S. F. Oosthuizen, the leader, Prof. J. Kaye, Dr. Max Shapiro, and myself. Here also, the number of radiologists from all over the world attending the congress, although less than at some of the European congresses, possibly because of the expense of getting to Canada and the fact that the cancer congress had already been held in Moscow, was again too great to be accommodated in any one hall for the scientific sections. These meetings had to be held in three different hotels, which, although not very far from each other, were nevertheless too far apart to permit attendance at all the lectures in which one was interested. The organizers made an attempt to concentrate the therapy sessions at one hotel, the diagnostic sessions at another, and the physics and radiobiology at a third.

The industrial exhibitions were held at two different hotels, and the film section and the scientific exhibition were at still another. The films, some of which were excellent, were shown during the whole day and the scientific exhibition was open the whole day as well. The industrial exhibition was on a large scale and the exhibitors must have been involved in very great expense in transporting the apparatus from Europe and the USA to Canada. The apparatus which was shown, particularly on the diagnostic side, was worth an exhibition or a congress in itself.

The plethora of interest — the diagnostic and therapeutic radiology, the industrial and scientific exhibition, and the films — was far more than those attending the congress could possibly see, let alone absorb, within a week.

The Exhibits (Technical and Scientific)

A vast amount of apparatus by European and American manufacturers was on display. Some of the diagnostic apparatus was literally fantastic, and there was nothing like it only three years ago at the Ninth International Congress of Radiology at Munich.

A great deal of the apparatus demonstrated embodied *image intensification and television* and, with these, automation and long-distance control were feasible.

There was a demonstration by Philips and the Picker Co. of apparatus which could be controlled by the radiologist from one room, while he observed the patient through the usual lead-glass window in another room, the actual part under examination appearing on a television screen on the radiologist's desk. By merely pressing buttons, the screening stand could be made to move in any direction, and even compres-

sion and palpation could be carried out mechanically. By pressing a button, an arm carrying a pad moved down on the patient and went through the motions usually performed by the radiologist to demonstrate the mucous membrane of the stomach. The cost of this type of apparatus was not even mentioned and must be enormous.

It must be recalled that, in the design of this apparatus, the object is to protect the radiologist and, to some extent, the patient, from excessive radiation. Because there is no proof that the life of the modern radiologist is shortened, because he can protect himself with the usual lead-rubber aprons and gloves, and because there is diminished secondary radiation with image intensification and television, one wonders whether this vast increase in expense is justified for the small gain in protection. How many radiologists would be satisfied to palpate a patient's abdomen from the next room with a pad controlled by a machine? Many radiologists of the older school, including myself, refused to use the Holtzknecht palpator because it did not convey to the radiologist the sensation of resistance and how much discomfort was elicited. Another objection is that distant compression cannot be directed to one small spot. I cannot imagine radiologists being satisfied with this long-distance palpation.

There was a wider range of *tomographs* on display than at any previous exhibition. Thus, there was the complicated Massio tomograph with which a keen radiologist can do the most remarkable work. It can be used on the rheumatic wrist, as is being done by Ross in Bristol, or in the demonstration of the ossicles of the ear, or for lesions at the base of the skull, and it can also be adapted for zonography. But, although it is so fine a machine, it nevertheless has very grave disadvantages because of its great expense, its cumbersomeness, and the limited number of patients who can be examined in any one day with it. A machine which requires the radiologist to walk around with a spanner and, in fact, to act as the radiographer, has obvious disadvantages.

There was also the Zuder pluristrator, less cumbersome than the Massio apparatus and less expensive, but with its own disadvantages. It has not got the same range of movements as the Massio hypo-cycloidal, and it is also difficult to do routine work with it.

Then there was the new Siemens tomograph, which is similar to the pluristrator; it can, however, be used for all routine work with a floating table top, and this is a great advantage. It is a decided advance on the pluristrator and, curiously enough, Siemens are the agents for both. At the congress, this new Siemens tomograph was demonstrated for the first time. I had heard rumours when visiting various centres on the Continent and in England about a new secret tomograph which Siemens were going to demonstrate at Montreal. It became almost the Siemens' secret weapon. It is a little more expensive than the pluristrator, but it has undoubted advantages over it.

I learnt with surprise that there were two types of Philips 1,000 m.amp. units — the Eindhoven type and the Muller Hamburg type — though there is not a great deal of difference between the two. It appears that, to avoid the agents having to carry too many spares, the Philips Company supplies only the one type of unit to one country. I understand we cannot get the Eindhoven type, for instance, in South Africa.

The ceiling suspension of tubes, either motor driven or hand propelled, was much more prominent than at Munich, and the ceiling suspension undoubtedly has some advantages in space saving. The Picker Company of America had a very ingenious tube mounting for their ceiling suspension. The tube could easily be rotated horizontally and facilitated manoeuvres, such as those for myelography bi-plane films.

The image intensifiers ranged from the five-inch to the 12½-inch rather massive Clinilex. Photofluorography of other parts than the chest was being practised with the Clinilex in some of the hospitals on the Continent for rapid surveys of skeleton, chest and alimentary tract, both for insurance and WCA work.

The Telson method of rapid daylight developing of films for operating theatre work was demonstrated, and it worked well. The surgeons can see the film in a minute and a half from the time of exposure.

The Marconi MK2 equipment can be used for magnetic recordings of the screen of the television monitor. However, this system, while most ingenious (allowing the radiologist to replay the image for reporting), is very elaborate and expensive. It may be of value in hospitals where the radiologist does not attend the whole day, but hospitals of this type cannot usually afford such elaborate apparatus, estimated to cost a vast sum, in the region of R60,000 with the X-ray unit.

It is quite impossible to describe all the apparatus and all the diagnostic, therapeutic and isotope work in this article. The display of radiotherapeutic apparatus was limited, compared to the diagnostic apparatus. The scientific exhibition demonstrating research in many countries of the world was excellent.

The Papers

The number of papers would have made their publication in a separate volume extremely costly and difficult, and the radiological congress decided not to publish the proceedings in one volume, but to permit each paper to be published in any journal the author selected, merely indicating that it had been a paper accepted for the congress.

It takes years to publish the papers, and those read at the 1959 Congress of Radiology in Munich are only now being published at a cost of over R40 for the volume. This is after the next congress has already been held and they are consequently out of date.

FUTURE CONGRESSES OF RADIOLOGY

It is obvious then that most international congresses have become far too large, too complicated and too expensive and, unless a solution is found to the problem, they will become self-limiting and disappear altogether, very much as the Atomic Energy for Peace congresses have apparently petered out, because of the vast amount of work involved in organizing them.

Two Congresses or One?

The organizers of the congresses of radiology, aware of this difficulty, have for some time been discussing ways and means of solving the problems associated with the evaluation of the international congresses. This was discussed at a meeting of the international executive, consisting of all the official delegations, before the opening of the scientific meetings. The South African delegation, led by Professor Oosthuizen, supported a resolution by the British delegation that the radiological congresses should be split into diagnostic and therapeutic sections, to enable those who were interested in radiotherapy only to attend that section, and those who were interested in diagnosis to attend that section only.

The arguments in favour of holding or continuing to hold the congresses as they are now came from the Continent of Europe, and even the American and Canadian delegations favoured it. They argued that radiodiagnosis and radiotherapy should not be divided up as completely as they are in Great Britain, the Commonwealth and South Africa. It should be realized that the British system is not followed on the Continent, and the World Association of the University Professors of Radiology, at its last meeting before the congress, decided that radiology should not be split into diagnosis and therapy and that the one professor should teach both sections.

The other argument was that the cost to the X-ray firms exhibiting apparatus was so enormous that it would be ruinous to have the radiological congresses in two sections. It was pointed out that several sections had already broken away and held their own congresses — e.g. the neuro-radiological congress and also the radiation or radiobiology congress, such as the one held in Harrogate. It was stated that, if this continual splitting-off continued, it would be an end to radiological congresses.

Personally, I have for some years urged that the example of 1950 should be followed, when the cancer congress was held in Paris and the radiological congress in London. It meant that those who were interested in cancer only need

not have gone on to the radiological congress, but those who came long distances, such as the South African and Australian delegations, could easily go from the cancer congress to the radiological congress in London, since these were held in succeeding weeks.

I felt that the same principle should be adopted for future radiological congresses — that they should be split into two portions held during successive weeks, not necessarily in the same country, but in the same zone. This would go a long way towards solving the difficulty, because those who were interested in diagnosis only need only attend the scientific sessions the week of the diagnosis section, and see the apparatus and the films etc. the following week, and *vice versa* for the therapy people. The congresses could be made easier still if the cancer congress were held in the same zone as well.

It was fantastic to have a cancer congress in Moscow and a radiological congress in Montreal, because most of those attending the cancer congress would naturally want to attend the radiotherapy section of the radiological congress, but the expense was prohibitive for many people, quite apart from the difficulty and the amount of time to be spent in travelling from Moscow to Montreal and the long interval of a month between the two.

The very people who urged that the congress should remain as it is, so that people could take an interest both in diagnosis and therapy, were those who made it impossible for radiologists to do so, because there were concurrent sessions or parallel sessions on radiotherapy and radiodiagnosis, whereas it is only by splitting the congresses into succeeding weeks that this overlapping could be avoided. There are, of course, difficulties in the way of this splitting. It would throw a big strain on the host countries and also on the exhibitors of apparatus. Their rental expenses would be considerably increased, for instance. It is possible, however, that the fact that more radiologists would be able to see the apparatus, might make up for this extra expense.

The British proposal was lost and the radiological congresses are not to be split. The proposal by the British delegation, again supported by the South African delegation, that the congresses should be held every four years instead of every three years, was, however, carried by a very narrow margin.

With regard to the publications and the sessions themselves, the method introduced at the Harrogate congress, which I have already mentioned, of having a rapporteur scrutinizing the papers of the main sessions and making his own summary, is an excellent scheme and should be adopted.

It is felt that, if the congresses continue to grow at their present rate, a self-limiting process will ultimately take place and that they will become too unwieldy and too impossible and will not be held at all. This would be a great loss, since the value of the congress and the benefit to those attending cannot be overemphasized.

South African Attendance

I have been very disappointed to find so few South African representatives at the various congresses held since the War. Even the official delegations did not always have their full quota of five members; yet South Africa is well placed to have better representation in that we still have private radiological practice and the private radiologists should be able to afford attendance at the congresses, even though there is the disadvantage of having to travel to Europe or America. The Provinces and the Central Government should emulate the example of the authorities in countries in Europe and America, in making it possible for more full-time radiologists to attend these congresses. The Radiological Society of South Africa has no funds available to establish a scholarship to enable some members to attend the congresses.

CONCLUSION

It has been impossible to describe any of the congresses and the papers in the various sections in detail. It is hoped, however, that the interest of radiologists has been aroused sufficiently to stimulate their attending the next International Congress of Radiology in Rome in 1965, and the next International Cancer Congress in Tokyo in 1966.

Apart from the lectures, radiological exhibitions and exhibitions of apparatus, there is also the extremely important factor of meeting colleagues interested in the same subject from all over the world.