Medicine in Retrospect

[The following is a transcript of an informal talk by Drs Kinloch Nelson and Charles M. Caravati, presented in 1974 to the School of Medicine of the Medical College of Virginia, Health Sciences Division of Virginia Commonwealth University, Richmond, Virginia.]

Dr Caravati:

One of my first recollections while I was a medical student was the severe pandemic of influenza of 1918 and 1919. There were in excess of a thousand patients at one time in the John Marshall High School, which was used as an emergency hospital. The death rate was terrifically high; the most serious complication was empyema, but most of the deaths were apparently caused by betahemolytic streptococcus infection superimposed upon the influenza pneumonitis. The medical students acted as orderlies in the temporary hospital.

If you went on the wards of St Phillips or Memorial Hospital in those days, you would find any number of cases of typhoid fever between July and September; there was no therapy for it, and in many patients it was fatal. Malaria was common until the end of August. As people went to the seashore, many of them developed malaria.

In the winters, pneumococcal pneumonia was a very common disease. All we really knew about it was how to diagnose it. There was nothing we could do for it except [to take] general measures and to comfort the family and have a good nurse on the job. It is interesting to recall that during the influenza epidemic, the Richmond Health Department stated the only worthwhile medicine was whiskey.

In 1934 a type specific serum came into use, which was very effective for certain specific types of pneumococcus. The health department had a typing station where we could have the sputum typed promptly, but the severe reactions encountered [by the patients] kept a lot of physicians from using it because of its potential anaphylactic effect.

Childhood diseases were serious and prevalent. The most fatal in those days was laryngeal diphtheria, and some of us were trained to intubate for this complication. Interestingly enough, laryngologists never did it. Dr Lipscomb, a general practitioner, was an expert intubator. He saved many lives by using laryngeal tubes.

There were very few drugs that were of any real help, although some newer ones were being developed and used. For instance, Salvarsan and bismuth were being used for syphilis. At that time, too, we were beginning to realize that specific vitamins helped some of the disorders we were seeing, particularly those in children.

When I was a freshman medical student, Dr Joseph Goldberger of the Public Health Service came and talked to the profession about pellagra and explained that a good general diet and nicotinic acid would cure it. I remember very well his making the statement that more than 300 people had died of pellagra that year.

Then came one of the great breakthroughs in medicine—the discovery of insulin by Banting and Best in Toronto in 1922. This was the first time, I believe, that a cooperative therapeutic effort was made by the medical profession and a pharmaceutical manufacturer. Eli Lilly co-produced the insulin for Banting and Best, which was later distributed to doctors in designated regions of the country by a physician in each region, who had to be provided with the proper protocol for its use.

In Richmond we had to apply for insulin to Dr Lester Newman, a pathologist in Washington, DC. I had come back to Richmond in 1924 to practice, and I had been here only a few months when I went to Sheltering Arms Hospital and saw a four-year old child in diabetic coma. It was the second episode of coma she had had, and I remember speaking to Dr Newman

on the telephone and trying to persuade him to send me insulin without a protocol.

Eventually he agreed and sent some on the RF&P Railroad, and the drug was given to this child the next day. Later, when she was about 30 years of age, she walked into my office one day just to say hello and tell me she was living in Cleveland. That was the first real success in controlling chronic disease that I can recall, and I think it is significant to remember the way it was handled by the profession and pharmaceutical industry.

In 1925 Minot and Murphy discovered that people with pernicious anemia improved on an adequate diet, particularly one with flesh meat and liver. Practically every patient treated in this way went into remission and stayed in remission indefinitely if they were kept on this treatment. I think the original work was done in the latter part of 1925, but we didn't use it clinically until 1926 and 1927.

I recall one female with pernicious anemia, who had been kept alive with frequent transfusions, and the dietician in the hospital ground up some pork liver and started feeding the patient half a pound a day. She went into remission shortly after receiving this new diet and died of a cerebral accident eight years later. It was soon discovered that the active principle in eliminating the anemia was in liver.

Dr William Branch Porter, chairman of the Department of Medicine at MCV, had the Valentine Company of Richmond manufacture an extract from liver, and the company made the first extract that was for sale in America. It was called Valentine Extract E-29, and it was a very effective treatment. It took about one ounce of the oral extract each day to control the anemia. The rest of the story, as you know, was the discovery of B-12 as the active principle.

Not long after this we found out that brucella abortus and tularemia, which were originally thought to be diseases in animals, could cause human disease, and we began to diagnose a few cases in this area, though frankly there were very few cases in Richmond or even in Virginia.

Endocrinology was beginning to be talked about at this time, and the active principle of the parathyroid gland was isolated. Between 1932 and 1934 Barr, who was professor of medicine at Barnes in St Louis, and later at Cornell, described the clinical symptoms of hyperparathyroidism and how it could be cured by the removal of the adenoma in the parathyroid gland. He showed that after surgery the cystic changes in the bones went away, and the biochemical changes all went back to normal. This work led to the treatment of certain cases of hypoglycemia by the removal of a pancreatic adenoma.

In 1937 ergotamine-tartrate was reported by Lennox as effective treatment for migraine headaches, and we thought this was a great thing because previously there was nothing a physician could do for these people except put them to bed, pull down the shade, and let them stay there, nauseated and vomiting, for three or four days.

In Germany in 1935, Domagk found that certain sulfonamides were very effective against betahemolytic streptococcal infections. In this country in 1936, it was recognized by the profession as a powerful anti-infectious agent.

The first drug was called Prontosil, a sulphanilamide that came in the form of a red half-gram tablet. With the possible exception of quinine for malaria and of Salvarsan, which was used for the treatment of syphilis, this sulphanilamide was the only specific drug used to treat infections.

I remember seeing a 36-year old man with a temperature of 104° or 105° F with a membrane in his throat and cervical lymphadenopathy and betahemolytic streptoccus infection of his throat, which two days later became a bloodstream infection. At that time Prontosil had just been developed, and it was given to this man who had difficulty in swallowing the first couple of tablets.

He stayed sick for another two days, but in 48 hours his temperature began to come down, his tachycardia disappeared, and he was considerably better in five to seven days. In those days we didn't repeat blood cultures, but clinically he became well. After that, Sulphathiazole, Sulphadiazine, and Sulphapyridine came into use, Sulphapyridine being an excellent drug for pneumococcal pneumonia.

Though penicillin was discovered by Fleming in 1929 and subsequently purified by Florey and Chain in Oxford, it was translated into clinical usefulness by scientists at the North Regional Laboratories in Peoria, Illinois. Penicillin was made available during World War II, and its distribution was directed by Dr Chester

Keefer of Boston. In the beginning it was used only for gram-positive infections.

Dr Nelson:

What I am going to say is somewhat autobiographical. I came back here [to Richmond] to practice medicine at the McGuire Clinic on July 1, 1929, at a salary of $150 a month. In October, 1929, the roof fell in! St Luke's Hospital usually had 85 to 90 patients. The cut-off point was around 65 or 66, as I understood it; at that level you came out about even. Anything above that was nice, but anything below that was real tough.

The hospital population dropped off almost immediately to around 20 where it stayed for several years. Through the kindness of Dr Stuart McGuire, the institution held together, and my salary was gradually reduced to $112.50 a month. I never knew why I got the 50¢, but I never asked anyone.

Mr Roosevelt came into office and started the WPA and the CWA and those other federal agencies that created work, one result of which was the building of the Lee Bridge. The number of physicians applying for the opportunity to examine the workmen who would build the Lee Bridge was out of this world. The man responsible for these funds was Dr Wyndham Blanton, Sr, the present Dr Wyndham Blanton's father, who was recognized for his general overall integrity, so he was given the task of deciding who would examine these birds!

Well, I was one of the early applicants, and it was finally decided that we would each work a certain number of shifts. We examined the workmen at the rate of 50¢ apiece. We could examine one man in fifteen minutes across the street from here in the basement of the City Hall Annex, which was recently pulled down.

Shortly before this, the physicians of this area began to realize that the best possible arrangement they could have was to work in groups. I think the McGuire Clinic group was one of the first to organize, and there was some criticism of this because doctors thought they should stand on their own feet and not associate with a group. This led to the question of whether a patient could "get a square deal" in a group. It seemed to me then and now, that there is no better doctor/patient relationship than that in which the patient picks out his doctor for whatever reason.

There was one lady who was going to a doctor whose capacity was certainly rather indifferent. I asked her why in the world she picked out this fellow. She said he looked more like a bulldog than any other doctor she'd ever seen. Well, on this basis he had her confidence, so she'd tell him her problems, which he attempted to take care of. She expected to pay, and he expected her to pay, and you can't beat that. In my opinion there isn't any other system that will ever equal that, but we have to play it the way it is.

There was interest about that time in the care of the indigent of the City of Richmond, and Dr B. Foster of the Health Department suggested that I take on the job as doctor to the poorhouse. To tell you the truth, I didn't exactly know where the poorhouse was, but I ended up there working part time at $50 a month. Added to the $112.50 [I was already making at McGuire Clinic], this was a considerable increase, and things seemed to be getting better.

There used to be an idea that the physician had a certain responsibility to the poor. Some physicians had office hours at certain times of the week for those who could not pay in the same office in which, at other times, they saw those who could pay.

We seem to have shifted away from that feeling of taking care of the overall population. It has somehow become the responsibility of somebody else to take care of those who cannot pay. It is interesting to remember that there once seemed to be a shortage of patients. A group opened an office with the idea of helping out in an indigent area. Shortly, the patients didn't seem to be there, and they had to close down. This was an odd circumstance.

After the second World War, I think the most striking thing that took place was the development of the "medical center." The medical school had, of course, been well known for many years, and everyone knew something about the teaching of medical students and to some degree [had knowledge of] the housestaff and nurses.

There was the necessity for employing faculty members to take care of many obligations besides direct patient care and teaching residents and students. This was hard to get across to people. All of these concerns have

brought about full-time physicians who, in many instances, have never really practiced medicine—have never really gotten down to the nitty gritty. This makes it difficult for them to understand the problems of the practice of medicine, and, on the contrary, those in practice have difficulty in understanding the problems of the faculty members who are in "the ivory tower."

These divisions have led to a lot of problems, but they are not new. If you go back in the history of the Medical College, you will find some of the most remarkable fights you ever saw in your life that took place before the 1900s. In the meantime, it appeared to me that the medical student and housestaff member were somehow divorced from the practice of medicine and consequently were not "interested" in practicing medicine. Now, this is baloney because the statistics show something like 90-odd percent of the graduates of this school have gone on to practice medicine.

Back in 1950, Dr Sanger managed to get some money to allow us to rotate our housestaff through community hospitals, and we sent them to four or five—I think Eastern Shore, Franklin, Farmville, Fredericksburg, and Norfolk, but this created some problems. These boys were, for the most part, married, which, as you know, is one of the greatest changes to take place in medical education.

When I was a student, nobody was married. There was one fellow who was married—incidentally, his wife had a baby, which was the biggest surprise all of us ever had. We were senior medical students and saw this lady everyday, and if you had asked me the day before she had the baby whether she was pregnant or not, I would have said no.

In any case, through Dr Sanger's influence we began to try introducing the housestaff and students to some of the actual practice situations that exist in this neighborhood. After rotating the interns through the hospitals, we started a Home Care program, for which we obtained money through the Commonwealth Fund. The idea was for medical students to see something that took place in actual life.

Unfortunately, this was not exactly actual life. This was life of a sort, but many physicians today never see patients such as those that were seen in Home Care then. These were people who lived in half a barrel over here on the city dump and had no money and no anything. How they ate, lived or whatever, nobody knew. You don't see patients like that in your practice—at least, I hope you don't. Then we put students out in the affiliated hospitals, very much the same hospitals as we sent the interns to 20 years ago, plus a few more.

There are a couple of other things that stand out in my mind as developments over the years. I remember one difference is that now if you call a doctor, sometimes nobody answers the telephone. This seems remarkable. If you called a doctor in 1930, about four people would answer the phone. Even today a ringing telephone gives me the jitters because I'm not sure whether it is somebody who really needs something or somebody that I need. I cannot imagine how it is possible to practice medicine and have an office that [allows telephone calls to go unanswered], but it can be done, and it is.

The second thing that bothers me is the idea of telling everybody everything. I was raised on the principle that the doctor knew best, and the patient didn't know anything, and the better off he would be if he didn't know any more. I am not sure but what this is right. I think this business of advising everybody of all the details of all the problems that they have or may have is really bad. I don't know what you do about it exactly, but I can tell you what I have done about it.

I was called one night to see a man who had, as far as I could see, a coronary thrombosis. So I went back to the office and got the electrocardiogram machine which took three leads—three, not twenty-three—and went back to his house. According to the three leads that ran out of the thing, it looked to me like he had a coronary thrombosis. So I told him I had to go back to the office to develop the film.

Well, this didn't make much sense as it was coming right out of the machine, but it suited him all right, so I went back and developed the film, and while I was there I got a normal electrocardiogram. I went back [to his house], and he said, "How does that thing look?" I said, "Boy, it looks fine to me. Here it is. You want to see it?" He said, "Well, I don't know anything about those things," and I said, "That doesn't make any difference. I'll show it to you."

So I pointed out the normal pulse waves and QRST, and he started feeling better right away. I didn't do him any harm, I think, and

I don't see what good it would have done for me to tell him how it did look by saying, "Boy, you've got it!" Now, I do think you ought to tell the patient's wife or son or whoever is responsible.

Another thing that interests me is that I believe the AMA or somebody has decided that we are short 50,000 doctors. I don't know how they arrived at that figure; there's some complicated calculation which shows that if you graduate all the doctors who are graduating, and all those who have died or are dying, and none die unexpectedly or in an epidemic, in some unknown year in the future we will reach the necessary number of doctors, whatever that means. I think that's "for the birds."

I think that in your lifetime, and hopefully mine, we will have doctors coming out of our ears. By the time the doctors now being graduated by medical schools, plus those who will shortly begin to do so, plus the trained personnel now going on in various things like physicians' assistants, nurse practitioners, med-x, and so forth, we will have an excess of people doing first-line medical care. It is a supply and demand business, and I hope I live to see that.

Discussion

Question: Who is the greatest medical character you remember in Richmond?

Dr Nelson:

I can think of one doctor I won't name who was always referred to as the "cheerful little cricket." To my knowledge he never smiled in his life. Oddly enough, his patients seemed to love this very sad approach; everything was going downhill all the time, but he had plenty of practice—plenty.

I recall another who was a great crier. In other words, if anybody was very ill or somebody died, and members of the family were weeping, he was the greatest weeper there. Tears ran down his cheeks like a waterfall. He was very popular.

Dr Caravati:

Dr W. T. Oppenheimer was one of the real interesting medical personages of his time. He was President of the Richmond Academy of Medicine in 1900, and he lived about 45 more years. He was an excellent general practitioner, if you want to use that term, and he did general surgery. As far as we know, he did it well. He was the best toastmaster in the area, and every medical meeting was enlivened by him. He would always tell a story, and he always had dozens of them.

Question: Dr Nelson, how about your service in the 45th?

Dr Nelson:

Well, I'm glad you mentioned that. I went into the 45th General Hospital as a major. Why I wasn't made a higher rank I never could understand. Dr Thompson, I believe, was a lieutenant, and in no time at all he became a captain, but I was still a major. Shortly after that, he became a major; I was still a major. Shortly after that, I left the army. I figured I'd done all I could. I couldn't get promoted, so forget it. What Dr Thompson is talking about is that I became ill due to my arduous service and was sent home on a stretcher. As I embarked at Naples, the band came down to see all the poor souls who were going home, and among them were 16 pregnant nurses.

One of them had just had a baby—cutest baby you ever saw. One nurse had arthritis, and she had a lot of x-rays so nobody would accuse her of the problem that the other girls had.

Incidentally, this was the first boat from Naples that came straight back to the States. Prior to this time, wounded and sick troops were sent from Naples to Africa. Sometimes the doctor in Africa was kind of an eager beaver and wanted everybody to serve, so he'd send them back to the front in Naples. Well, they didn't like that, so they worked out a boat to take them straight back to the States.

The chief doctor on this boat was an obstetrician, and he had been in the army for I don't know how long. He hadn't seen a pregnant lady since he got into the army, and we presented him with 16 cases. He nearly had a fit; he was examining people all the way home.

Dr Caravati:

I thought it might be worthwhile just commenting that during World War I many of you may not know the Medical College of Virginia was also the 45th General Hospital under [the direction of] Dr Stuart McGuire, and Dr Nelson's father was one of the prominent members of the staff in 1918. The hospital was in action during

the period of some of the hardest fighting around the Argonne. The history was written by Dr Joseph Geisinger, who was a urologist in town, and it is well worth reading.

Question: Will you comment on the merger of the two schools of medicine in Richmond?

Dr Caravati:

You'll have to remember that geographically the two schools were only two city blocks apart which, of course, should have never been. All the faculty were part time, and the faculty members in the two schools practically never spoke to each other. They had very strong feelings about this, but perhaps the competition made for good medicine because they tried to outdo each other when they made scientific presentations.

In 1910 the Flexner Commission found that they were graduating too many physicians in the state and recommended the merger of the Medical College of Virginia and the University College of Medicine. After that, there was a fight about twice a week, as I understand it. However, the merger was accomplished in 1913 through the efforts of many outstanding people led by Dr Stuart McGuire, Dr George Ben Johnston, Dr Christopher Tompkins, and Mr Eppa Hunton. Drs McGuire and Johnston were not friends; only as far as their interest in medical education did they get together.

There were a lot of stories about individual physicians and their behavior at meetings. Dr Daniel Coleman is said to have come to a meeting with a pistol on his hip, and no one knew whether he had real bullets in it or not. He stood on a chair and said, "I am not as big as the rest of you, but look here."

Dr Nelson:

The father of Mr Eppa Hunton was really the catalyst between the warring groups and brought them together in the consolidation of the Medical College of Virginia in 1913 more than anyone else.

Question: Do you have any further comments about the care of the indigent patient?

Dr Caravati:

Well, one dramatic example is Sheltering Arms Hospital. Sheltering Arms was for years right over here on Clay Street. Now it is adjacent to Richmond Memorial Hospital. In days gone by, every doctor thought it a privilege to be able to take care of patients at Sheltering Arms. I know we all thought it was a great thing to be on the visiting service, and also to teach the nurses; we really did think it was a privilege to do all this. No doctor ever received a penny for his services, nor did any patient pay for his or her care.

Question: Have you seen anything in medical education that has changed, or is educating doctors about the same as when you were in school?

Dr Nelson:

Everything has changed. I was thinking the other day about Dr W. B. Porter. Dr Porter was a very handsome person, and he was very concerned about his appearance; he always had on a spotless white coat and a little flower in his buttonhole. He had the idea that he ought to look like a doctor—whatever that means. Were he to see some of our present campus candidates, I'm sure he'd be revolving wherever he is.

The most remarkable change I have seen has been in the last four or five years. Everyone seems to be going into primary medical care, which I think is a very salutary move. It's hard for me to tell, you see, because I was raised as a doctor. My earliest recollection is over here in the old Memorial Hospital with my father, sitting in the waiting room while he went to see a patient or two. I can remember the horse he had named Phyllis. Every now and then Phyllis would take it into her head to go home. When we would come out of wherever we were, there was no horse.

Dr Caravati:

One development that has been interesting to me is that now you can't find a doctor to come to your home. Most patients can be transported to an emergency room in one of the hospitals. Probably 50 percent of the patients seen there are not true emergencies. Because of well qualified physicians who are full time, good care is administered in an excellent setting. This makes many house calls unnecessary, and I believe this practice will grow rapidly. To me it is a really interesting evolution of

the practice of medicine, and I think it is going to continue to grow.

Dr Nelson:

I would like to put in a plug for house calls. If you have an occasion in your practice to see a patient in the home, I would recommend it. There is no better place you can get to know them as well, and it has always struck me as odd that when you get into the home, about the only private spot is the bathroom. If you want to talk to the wife about the husband, you just call her into the bathroom and shut the door, and nobody else will come in there.

Dr Spencer:

Thank you very much indeed, Dr Nelson and Dr Caravati. You have shown that history doesn't have to be dull and uninteresting, and I am delighted that you could tell us about your 50 years of practice. Thank you very much again.

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