Our heritage

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MEDICINE HAS ITS ORIGINS in the dim and murky past. The evolution of medicine may best be considered in its three phases, viz. Magic, Religion and Science.

Magic

Science and Magic are more related than would appear at first sight. Sir James Frazer, in his Golden Bough, points out that science and magic have the common property that in both the laws of nature are respected and take their natural course, whereas religion involves a belief in a superhuman being or beings and a belief that the superhuman being or beings can be persuaded to intercede on behalf of any one who prays to change the current of nature in such a way as to benefit him. This elasticity or flexibility is alien to both magic and science both of which hold that nature's laws are inflexible. They cannot be deflected by prayer or intimidation.

When we analyse the principles of thought on which magic is based, they fall into two types, the first being that like produces like and the second that things which have been in contact continue to act on each other even if separated by a distance. These two principles may be termed the Law of Similarity which gives rise to homeopathic magic and the Law of Contact which gives rise to contagious magic.

The following examples will make the position clear.

Homeopathic Magic

The ancient Hindoos performed an elaborate ceremony, based on homeopathic magic, for the cure of jaundice. Its main drift was to banish the yellow colour to yellow creatures and yellow things, such as the sun, to which it properly belongs, and to procure for the patient a healthy red colour from a living, vigorous source, namely a red bull. With this intention, a priest recited the following spell: "Up to the sun shall go thy heartache and thy jaundice: in the colour of the red bull do we envelop thee! We envelop thee in red tints, unto long life. May this person go unscathed and be free of yellow colour! The cows whose divinity is Rohini, they who, moreover, are themselves red (rohinih) — in their every form and every strength we do envelop thee. Into the parrot, into the thrush, do we put thy jaundice, and, furthermore into the yellow wagtail do we put thy jaundice."

While he uttered these words, the priest, in order to infuse the rosy hue of health into the sallow patient, gave him water to sip which was mixed with the hair of a red bull; he seated him on the skin of a red bull and tied a piece of the skin to him. Then in order to improve his colour by thoroughly eradicating the yellow taint, he proceeded thus. He first daubed him from head to

foot with a yellow porridge made of turmeric or curcuma (a yellow plant), sat him on a bed, tied three yellow birds, to wit a parrot, a thrush, and a yellow wagtail, by means of a yellow string to the foot of the bed; then pouring water over the patient, he washed off the yellow porridge, and with it no doubt the jaundice, from him to the birds. After that, by way of giving a final bloom to his complexion, he took some hairs of a red bull, wrapt them in gold leaf, and glued them to the patient's skin.

The ancients held that if a person suffering from jaundice looked sharply at a stone-curlew, and the bird looked steadily at him, he was cured of the disease. "Such is the nature," says Plutarch, "and such the temperament of the creature that it draws out and receives the malady which issues, like a stream, through the eyesight." So well recognised among bird-fanciers was this valuable property of the stone-curlew that when they had one of these birds for sale, they kept it carefully covered, lest a jaundiced person should look at it and be cured for nothing. The virtue of the bird lay not in its colour but in its large golden eye, which naturally drew out the yellow jaundice. Pliny tells of another, or perhaps the same, bird, to which the Greeks gave their name for jaundice, because if a jaundiced man saw it, the disease left him and slew the bird. He mentions also a stone which was supposed to cure jaundice because its hue resembled that of a jaundiced skin.

Contagious Magic

"..... in many parts of the world, it is customary to put extracted teeth in some place where they will be found by a mouse or a rat, in the hope that, through the sympathy which continues to subsist between them and their former owner, his other teeth may acquire the same firmness and excellence as the teeth of these rodents. For example, in Germany it is said to be an almost universal maxim among the people that when you have had a tooth taken out, you should insert it in a mouse's hole. To do so with a child's milk-tooth which has fallen out will prevent the child from having toothache. Or you should go behind the stove and throw your tooth backwards over your head, saying, 'Mouse, give me your iron tooth; I will give you my bone tooth.' After that your other teeth will remain good. Far away from Europe, at Raratonga, in the Pacific, when a child's tooth was extracted, the following prayer used to be recited:

"Big rat! little rat!
Here is my old tooth,
Pray give me a new one."

Then the tooth was thrown on the thatch of the house, because rats make their nests in the decayed thatch. The reason assigned for invoking the rats on these occasions was that rats' teeth were the strongest known to the natives."

Combined Homoeopathic and Contagious Magic

The two types of magic are often mixed as in the following instance, "A Malay charm....., is as follows. Take parings of nails, hair, eyebrows, spittle, and so forth of your intended victim, enough to represent every part of his person, and then make them up into his likeness with wax from a deserted bees' comb. Scorch the figure slowly by holding it over a lamp every night for seven nights, and say:

"It is not wax that I am scorching,
It is the liver, heart, and spleen of so-and-so that I scorch."

After the seventh time burn the figure, and your victim will die. This charm obviously combines the principles of homoeopathic and contagious magic, since the image which is made in the likeness of an enemy contains things which once were in contact with him, namely, his nails, hair, and spittle. Another form of the Malay charm is to make a corpse of wax from an empty bees' comb and of the length of a footstep; then pierce the eye of the image, and your enemy is blind; pierce the stomach, and he is sick; pierce the head, and his head aches; pierce the breast, and his breast will suffer. If you would kill him outright, transfix the image from the head downwards; enshroud it as you would a corpse; pray over it as if you were praying over the dead; then bury it in the middle of a path where your victim will be sure to step over it."

It was inevitable that the medicine man would also be the learned man. Since magic and medicine were both part of the power that ruled primitive society, the physician was expected to know nearly everything. This idea still exists and medical practitioners have been called doctors or learned men. The diploma of the Royal College of Physicians of London, in electing a Member to the Fellowship, says *"approbasse et in Societam nostram cooptasse doctum et probum virum"* i.e. we approve and elect to our Society the learned and upright man. It is, in fact, a sad thing that medicine has become so isolated and so highly technical that most doctors of to-day are relatively uneducated.

Religion

In the days when magic was the main answer to life's problems, the person who studied and

practised magic became a learned man or doctor who made use of his learning to heal the sick. But man passed on from the magic phase to the religious phase. Religion as indicated above depends on a belief that prayers will have the effect of deflecting the laws of nature.

At the same time, learning passed largely into the hands of priests. In ancient Egypt, the priests were often physicians as well. The special God of Egyptian medicine is Imhotep who was probably a king or a priest, expert in medicine, who lived at the time of the Third Dynasty. Both in Europe and in India, priests were, and to a less extent still are, the learned class. The Catholic Church, especially its Jesuit branch, consists of numerous scholars and so does the Brahmin creed. In recent years, we have had proof of this in the persons of Pierre Teilhard de Chardin and Sri Radhakrishnan. The former, a zoologist by profession, is a French Catholic priest who wrote that scholarly and penetrating study "The Phenomenom of Man" to which Julian Huxley has contributed an appropriate preface. Sri Radhakrishnan, the first President of India, is a Brahmin of deep and wide learning.

Thus medicine — the art of healing being apparently the most impressive of all callings, — passed from the company of magic to that of religion. With the acceptance of divine intervention, miracles became possible. A few examples will make this clear.

St. Luke

> "And as he entered into a certain town, there met him ten men that were lepers, who stood afar off,
>
> And lifted up their voice, saying: Jesus master, have mercy on us,
>
> Whom when he saw, he said:
>
> Go, shew yourselves to the priests.
>
> And it came to pass, as they went, they were made clean."
>
> "Now it came to pass, when he drew nigh to Jericho, that a certain blind man sat by the wayside, begging.
>
> And when he heard the multitude passing by, he asked what this meant.
>
> And they told him that Jesus of Nazareth was passing by.
>
> And he cried out, saying: Jesus, son of David, have mercy on me.
>
> And they that went before, rebuked him, that he should hold his peace: but he cried out much more: Son of David, have mercy on me.
>
> And Jesus standing, commanded him to be brought unto him. And when he was come near, he asked him,
>
> Saying: What wilt thou that I do for thee? But he said: Lord, that I may see.
>
> And Jesus said to him: Receive thy sight: thy faith hath made thee whole.
>
> And immediately he saw, and followed him, glorifying God. And all the people, when they saw it, gave praise to God."

Our Lady of Lourdes is well known for the ability to cure those who were pronounced incurable by well qualified doctors. In fact, a committee of eminent doctors studied the cases and it is said they were satisfied the cures were genuine.

Science

Notwithstanding the fact that Hippocrates had brought scientific thought and method to medicine, medicine continued for many centuries to be related to magic and religion. It was in Salerno as late as the twelfth century that a separation was brought about between medicine and religion. Roger, King of Sicily, enforced a law whereby only those who had showed in the state examination that they had fulfilled the necessary course of studies were permitted to practise medicine "in order that the king's subjects should not incur danger through the inexperience of their physicians." Federick the Second also recognised the importance of the school of Salerno in 1224 and passed legislation regarding the study of medicine.

In Salerno at that time, candidates had to undergo three years of general studies as a preparation for the medical course which consisted of four years, followed by one year spent in practising medicine under the supervision of a senior medical practitioner. This arduous preparation is exactly the same as is now in force in the United States, viz. three years of liberal arts, four years of medicine, one or two years of internship before being licensed to practise.

The physicians did not practise surgery which was regarded as an inferior art and not worthy of scholars such as physicians. The physician gave written advice on surgical conditions and abstained from the practice of surgery which was left entirely to the surgeons and barbers. Whereas the physicians had university rank, the surgeons did not. The physicians were regarded as academicians, the surgeons were considered of a lower order who rarely knew Latin — the language of learning.

In England, the barbers formed a religious guild recognised by the Charter of Edward IV in 1461.

In 1540, the barbers and surgeons together were granted a Charter by Henry VIII. This union of barbers and surgeons lasted until 1745, the Royal College of Surgeons of England being founded in 1800.

At the end of the thirteenth century, pharmacies were established in Italy and the Guild of Physicians and Pharmacists were formed. At that time, the pharmacist was still an astrologer and alchemist and magic powers were attributed to him and pharmacy formed as it were the centre of a scientific circle. The physician and the pharmacist worked together and an old Italian illustration shows the pharmacist receiving in his shop patients waiting for the physician who would point with a baton to the drugs to be dispersed to the patient.

In the United Kingdom, the Royal College of Physicians of London was the first institution to be set up. In 1518, "The Charter of Incorporation" was granted by Henry VIII to the President and College, or Commonalty, of the Faculty of Physic in London. It was established in order "to withstand in good time the attempts of the wicked, and to curb the audacity of those wicked men who shall profess medicine more for the sake of their avarice than from the assurance of any good conscience whereby very many inconveniences may ensue to the rude and credulous populace." Many arts and sciences flourished in Europe during the Renaissance period. There were no man-made walls enclosing knowledge as in the case of religion.

Humanism

In the field of literature, there were two French stories which liberated the human emotion of love from the shackles of tradition and religion. Abelard and Heloise is the story of love between a monk and a nun. In the words of Walter Pater "..... ..... as Abelard and Heloise sat together at home to refine a little further on the nature of abstract ideas Love made himself of the party with them." They have been immortalised in the letters they exchanged and later by Alexander Pope in his poem, "Abelard and Heloise."

Aucassin and Nicolette is the story of Aucassin who falls in love with Nicolette, a beautiful girl of unknown parentage. Their love raises the wrath both of the aristocracy and of the church; both are imprisoned by the secular authorities and he is threatened with the pains of hell by the church. After many adventures, they are united in love.

Both these stories show the conflict between religion and humanism. Walter Pater says that one of the strangest characteristics of the period was its spirit of rebellion or revolt against the magic and religious ideas of the time.

The position of medicine at the end of the 15th century is well stated by Castiglione.

"Western Europe began to understand that, much more than the maxims of the classics, it was the spirit that dictated these maxims that was to be appreciated. It is essentially from this Humanism that arose a free and fertile spirit of criticism that flourished in medicine as in art, together with the desire to see new things and to think with one's own mind instead of bowing meekly before the dogmatic assertions of scholasticism. Humanism, of which Petrarch was a chief prophet, is defined by J.A. Symonds as 'a just perception of the dignity of man as a rational, volitional and sentient being, born upon this earth with a right to use it and enjoy it.' It is in this spirit that the principal factor in the renaissance of medicine is to be found — a revival that was prepared by the Later Middle Ages with those early studies on the cadaver and the beginnings of clinical observation which are characteristic of Humanism."

During the Renaissance, the history of medicine is inextricably bound with the history of the humanities. It was during this period that the greatest artists of all time, Michael Angelo and Leonard da Vinci, who were both highly accomplished students of the Humanities, dissected the human body in order to be able to portray it aright — Da Vinci also described for the first time the anatomy of the broncho pulmonary segments. In 1889, Ewart of the Brompton Hospital redescribed them.

The eighteenth century was characterised by philosophies and systems which resulted in political and social upheavals in Europe. These brought about a positivistic concept of life. Man explored nature and discovered numerous scientific facts embracing a good part of the physical sciences, viz. Physics and Chemistry. Since printing had already become universal, thanks to Gutenburg, reading became common whereas previously only the monks and scholars read. Journals began to multiply. Numerous discoveries were made due to the positivistic concept and these became widely known due to the coming into existence of numerous journals. The physicians substituted literary studies for alchemy, astrology and horoscopy and often acquired a reputation for literature. John Arbuthnot's History of John Bull immortalises the nickname by which the English people have since been known. William MacMichael's story of the Gold Headed Cane, an adornment which was then a conspicuous part of the physician's insignia, passed through many hands, ending with Mathew Baillie whose widow presented it to the Royal College of Physicians of London.

It was only in the first half of the 19th century that medicine began to have a truly scientific basis and the physician lost his semi-miraculous character. Hitherto, he had been working according to the rules of magic and religion. With the growth of the biological sciences, he could experiment and make scientific explorations in the laboratories and in the ward. The pre-clinical and para-clinical sciences came into their own, particularly Anatomy, Physiology and Pathology.

I am not saying that medicine has completely broken off with magic and religion. As the practice of medicine is intimately concerned with the life and aspirations of man, it is inevitable that the progress of medicine will be a part of the progress of man, that is, it will and must reflect the work of man in other fields of knowledge. Therefore, the development of science gave an impetus to the progress of medicine. The credulity of human nature being what it is, medicine still carries with it a considerable proportion of magic and religion from which it is derived.

Meanwhile, the world has been advancing in many fronts of knowledge. The pace seems to be increasing in geometric progression, the speed of advance becoming faster and faster. The public are better and better educated and no longer can "the bedside manner" replace an accurate knowledge of medicine. It is during this century that an almost completely scientifically based medicine has been offered to the public. We are still in the throes of the revolution of modern medical thought.

Progress in medical education during this century

The beginning of this century saw numerous advances due to the progress of science. Biochemistry, Bacteriology and Immunology have invaded the medical curriculum together with Anatomy, Physiology and Pharmacy. As a result of this, medical education has put on a new face.

The preparatory sciences, viz. Physics, Chemistry, Biology and Mathematics, are dealt with during the last two years of school thereby preparing the student for the study of medicine. The study of medicine after adequate preparation takes about five years.

Part of this time is spent in the Pre-Clinical Sciences, viz. Anatomy, Physiology and Biochemistry. This takes about 18 months and is followed by an introduction to Clinical Medicine and the Para-Clinical Sciences, i.e. Pathology, Bacteriology and Pharmacology.

Various experiments are being made in the teaching of medicine. In the United States, there is a school of medicine which throws the student into the sea of medicine the day he arrives at the medical school. They start off, for instance, by introducing the student to an expectant mother and make him follow the case through to delivery and then to post-partum care and the care of the infant so that he sees a longitudinal section of medicine. When the medical student has completed his course and passed the final examination, he has to spend one or two years as a houseman in a recognised hospital. Then he has to decide what he would like to do. There are many options open to him. He can decide not to practise medicine at all and take to some other professional activity. To mention a few — Oliver Goldsmith, Anton Chekov, Sir Arthur Conan Doyle and Somerset Maugham. Or he can decide to do one of the Pre-Clinical or Para-Clinical Sciences.

Those who wish to treat the sick must decide whether they wish to be consultants, specialists or general practitioners. Each of these needs further vocational training. During the last few decades, much provision has been made for post-graduate training of consultants and specialists but until 1950, there was no provision for vocational training of general practitioners who were and are and, I am sure, will be the basic structure on which all else will depend.

So a group of like-minded general practitioners got together in the United Kingdom to remedy this defect and established the College of General Practitioners. They had to face much opposition, the most important of which came from the doctors, especially the consultants and specialists who considered that the general practitioners belonged to an inferior race. However, due to the dedication and ability of the general practitioners in the United Kingdom, the college thrived and made a considerable impact on medicine in the United Kingdom. I venture to think that the current of devotion and ability has begun to touch the shores of other countries, rather like the Gulf Stream laves the shores of Britain and ameliorates the climate.

The College of General Practitioners then found suitable accomodation at Prince's Gates London in a building which, interestingly enough, was the house in which Joseph Kennedy, father of the President, lived while has was the Ambassador of the United States. They slowly gained a reputation for maintaining high standards in medicine and some time later, the college received recognition by being called the Royal College of General Practitioners. Then the General Medical Council agreed to recognise the Royal College of General Practitioners and a Fellow or Member of the college may add after his name the letters F.R.C.G.P. or M.R.C.G.P. This means the college can now speak

with authority for the whole profession of general practitioners in the United Kingdom.

The Humanities

This brings me to the main point of my philosophy — that is the study of the Humanities. At the Massachusetts Institute of Technology, they told me than an engineer is not a good engineer if he only knows engineering. I teach students that a doctor is not a good doctor if he knows only medicine. Whereas consultants and specialists are interested in the case, the general practitioner is interested in the warm heart that beats within. Macbeth referring to Lady Macbeth asks the doctor,

> "How does your patient, doctor?"
> "Not so sick, my lord,
> As she is troubled with thick-coming fancies,
> That keep her from her rest."
> "Cure her of that:
> Canst thou not minister to a mind's diseas'd,
> Pluck from the memory a rooted sorrow,
> Raze out the written troubles of the brain,
> And with some sweet oblivious antidote
> Cleanse the stuff'd bosom of that perilous stuff
> Which weighs upon the heart?"

The general practitioner, above all, must have a knowledge of the humanities because then he will understand the factors involved in the making of the individual man in society and his aspirations and values. It might be considered that it is impossible for a doctor to find time to obtain a fair acquaintanceship with the humanities. On the contrary, some of the best doctors have been well versed in the humanities. To mention just a few names, Sir Thomas Browne of Religio Medici fame; Sir William Osler, Lord Brain and Dr. William Pickles, the first President of the Royal College of General Practitioners.

I have had the good fortune of meeting William and Gertrude Pickles. My wife and I were sitting at the same table with them at dinner in Harrogate. I also listened to him when he gave a talk at the Post-Graduate School at Hammersmith. He told us that in the village of 6,000 persons where he worked, he knew everyone and their dogs and cats. The people all confided their secrets to him and even their love affairs. Thus he was able to determine that the incubation period of infective hepatitis was 18 to 35 days — he knew exactly the movements of the people, including the love trysts of the young.

While on the subject of William Pickles, I will tell you a story. Major Greenwood in his "Epidemics and Crowd Diseases" mentions that Charles Creighton, who was an able statistician, had a poor view of Sir William Jenner. He said Jenner made three mistakes, first that smallpox and cowpox were the same virus — "Variolae Vaccinae" (smallpox of cows) being the title of Jenner's paper. The second was his unproved assumption that vaccination prevents smallpox. The third was an article in which he said that the cuckoo lays its egg in the hedge-sparrow's nest and the hedge-sparrow hatches the egg. As it grows, it becomes bigger than the hedge-sparrow and ejects the young hedge-sparrows from the nest. Greenwood says that it has subsequently been shown that Jenner was right on all three counts. When I read this, I knew that what Jenner stated regarding the cuckoo and the hedge-sparrow was true because Shakespeare says so and he should know. The Fool says to Lear,

> "For you trow, nuncle,
> The hedge-sparrow fed the cuckoo so long,
> That it had it head bit off by it young."

Sometime after I read this book by Greenwood, I saw in the British Medical Journal an article in which William Pickles refers to Shakespeare's knowledge of the egglaying habits of the cuckoo and makes the same quotation as I have done.

College of General Practitioners

This then is our heritage based on the tripod of Magic, Science and Religion, leavened by the spirit of Humanism. It must not be imagined that the practice of modern medicine has wholly eschewed magic and faith which is the basis of religion — a belief in divine intervention as distinct from the working out of logical sequences as in magic and science. This heritage is fully operative only in the case of the general practitioner because he is the only one who has continuing responsibility for the patient and knows the patient, his family and his setting well.

For some time now, it has been felt that a College of General Practitioners should be set up here since there is no vocational training for general practitioners. If a laisser-faire attitude is adopted by general practitioners, the standard of general practice will fall considerably and the future of medicine jeopardised.

The functions of the College of General Practitioners would be:—

1) To bring about a rise in the standard of general practice by providing vocational training to fit the doctor for his job.

2) To hold examinations to indicate

what the standard of general practitioners should be.

3) To provide continuing education for the general practitioner from the time he graduates till the time he ceases to practise medicine.

4) To appoint tutors to do the teaching.

5) To do research on problems facing the general practitioners.

Now what is the difference between a general practitioner and a consultant or specialist? The main difference is the total approach to the human being offered by the general practitioner — he has to look after the sick person and his family. He should, in addition to being their doctor, be "philosopher and friend" to the family. Whereas a consultant or specialist does not have first contact with the sick, the general practitioner does. The former practises cross sectional medicine but the general practitioner carries out longitudinal medicine. It is rather like the difference between Charles Dickens and Charlotte Bronte. Dickens, living in the metropolis, saw millions of people whom he met for a short time only. One does not often realise that in a large city like London, the individual gets lost in the crowd. In Haworth, a village of 8,000 people, the Brontes had considerable opportunity for studying human beings at length. This provided them with an unrivalled depth of understanding of the human being. Dickens described situations, the Brontes described human beings.

The general practitioner is the captain of the ship. He takes advice from various technical officers but the responsibility to keep the bark afloat and to reach its destination is entirely vested in the captain. The personal relations developed between him and his patients provide unrivalled opportunities for a human approach.

Patients are human beings, not numbered cases for the research worker. The doctor-patient relationship, which is characteristic of general practice leads the doctor into the homes of his patients and he begins to understand the human being as a unit of society and therefore the general practitioner is most suitably situated to restore the sick person whole to the community to which he belongs. Similarly, the general practitioner has to go all the way with the sick, unlike consultants and specialists. The Gospel says: "If a man shall ask you to walk with him one mile, thou shall go with him twain." But this is not enough for the general practitioner — he must go all the way, if necessary to the bitter end.

Knowledge is advancing so rapidly that members of any of the professions must have continuing education to keep them abreast of modern advances to enable them to give of their best. This is exactly what the college proposes to do. I have said that it is the general practitioner's duty to make a patient whole and return him to the society to the position and status to which he belongs. He has therefore to understand the human being and the society of men in order to render the appropriate service. I venture to think that he can do this best if he studies the humanities as well. It is the avowed purpose of literature to present life and to present it whole. Whereas consultants and specialists see parts of the patient, it is the general practitioners who see him whole. His duty is not just to set a fracture or cure a patient of a fever but to make him whole.

The future of general practice

There has been much speculation on this account. Some years ago, I asked Sir Derrick Dunlop, then Professor of Therapeutics in Edinburgh and chairman of the Committee on Drugs of the United Kingdom what he thought was the future of general practitioners. He said they would all be members of a Royal College of Physicians. The idea attracted me but on further thinking, I am convinced there must be several branches of clinical medicine:—

1) General practitioners, i.e. in course of time, all general practitioners would have undergone vocational training in general practice and would be Members or Fellows of the College of General Practitioners.

2) Consultants.

3) Specialists.

If the college is to make its imprint on the future of general practice, we must get going now and start attracting the young to the romance which is general practice. We must also tell the children how satisfying general practice can be. Of course, we share medical knowledge with all medical men but the general practitioner is unique in that he goes all the way with the patient from the time he is born till the time he dies. Our subject, in its application, is a branch of Sociology and should be taught as such. We must talk to teachers at the Teachers Training College so that they will be able to inspire the children in their turn. We must also talk to the different age groups each in their language. For this purpose, the talks can be given at three levels:—

a) Primary School

b) Lower Secondary, Grades 7, 8, 9

c) Upper Secondary, Grades 10, 11, 12.

A booklet has been published on the medical profession by the Singapore Medical Association. It is very good for the information it contains but does not touch on the romance of medicine. When I first learned that Wohler had synthesised urea, my heart leapt up because man had pried into the citadel of God and was able to make an organic substance, hitherto an impossible feat. I knew that diabetes was a killing disease and had seen several persons suffer and die. In 1922, Banting and Best discovered insulin — a boon to millions of people. Although much work was being done, especially in Germany, on chemotherapy during the early part of this century, most infective diseases remained incurable and had to be left to nature.

In 1936, there was a boy of 11 who had streptococal septicemia. He was the son of a friend of my mother's and it so happened that he was admitted to my ward. He was such a nice boy that all the ward staff fell in love with him. The blood grew a pure culture of streptococcus haemolyticus and there was no hope for him at all. I used to do a ward round every night. One day, I saw this boy and I knew he would not survive till the next day and I skipped the ward round that night because I could not bear to see him die. The next night, when I did the ward round, the staff nurse was angry with me and said, "You knew he would die and you did not come. On whose shoulder could I cry since you failed me and failed the boy?" I felt guilty but I am not sure that I would not repeat the performance.

A few months later, para amino benzene sulphonamide was synthesised and put on the market under the name of "Prontosil". Closely following came Sulphapyridine.

When I graduated in 1931, I had a whole ward full of cases of lobar pneumonia and the mortality was 40% — this was now reduced to less than 5% by the use of sulphapyridine. Then came Penicillin — the Queen of drugs. No wonder when Alexander Fleming visited a village in Spain the people had paved the roads with flowers in anticipation of his visit.

In 1947, I read a paper on pulmonary tuberculosis and the chairman, Dr. Chen Su Lan, in summing up said that pulmonary tuberculosis was still an incurable disease. Immediately afterwards, the advent of streptomycin was announced. Furthermore I was at the Brompton Hospital in London when PAS (para amino Salicylicacid) was first tried and I tasted the mixture of PAS used there. Between the time I graduated and now, numerous discoveries have been made and many patients, who used to die, make a perfect recovery and carry on a normal life. What can be more gratifying to a doctor than this?

Now for the practice itself. It is heavy work and carries much responsibility but has its consolations. I will illustrate what I mean by giving two examples, in my own life.

Some 25 years ago, I fell down the stairs and broke the neck of the fibula and damaged the common peroneal nerve which winds around it. I was in excruciating pain. Every day, some of my patients came to visit me in the hospital and they all brought some presents, such as fruits, flowers and so on. But one couple thanked me for what I had done for them during the Japanese occupation. They said they were very grateful to me but they were poor and could not afford to give me anything. So they stood there and prayed for me. When they left, I wept — I could not believe that I had done anything to deserve so much. Wordsworth says, "The gratitude of men often leaves me in tears."

On another occasion, I was summoned to see a dying patient at four o'clock in the morning. During the chilly morning drive, I caught a cold and began to sneeze. The devoted wife in the midst of her deep sorrow said: "Poor doctor, you have caught a cold because of us."

We have to invade the medical curriculum. We must persuade the university to create a department of general practice with staff graded in the same way as the other clinical departments except some, if not all the members will do part-time service — because they will have to do general practice in order to teach it. We must carry the philosophy of general practice and its relationship to sociology into the medical faculty and permeate it. The members of this department will hold the same status as the other clinicians and their voice should be heard throughout the university in all its committees.

The Research Committee, which we have established, will introduce ideas and formulate research schemes of organised research. I envisage also that this college will carry out multi-disciplined research in which members of the other professions will take part, like law, sociology and so on because advances are often made at the periphery of disciplines i.e. when two or more disciplinary fields meet.

References

1. The Golden Bough by Sir James Frazer.
2. The Gospel according to St. Luke.
3. The Renaissance by Walter Pater.
4. A history of medicine by Arturo Castiglione.