Papers and Originals

History of the Royal College of Physicians of London*

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The Royal College of Physicians is the oldest English medical society or institution. There is scarcely any activity proper to a medical body in which it has not engaged at one time or another. Its purposes and its achievements have been determined by constantly varying needs and opportunities, but it still carries with it qualities which it acquired at different stages of its history, some of them even from the earliest stages.

Foundation of the College

It was founded in the year 1518 by a charter of King Henry VIII, to satisfy a recognized need and perhaps to meet an emergency. In the early Tudor period it was well known that in medical matters, compared with Italy and other Continental countries, England was a backward country. The few physicians who practised in the great houses and the larger towns were not bound together in any society, and there was no legal prohibition of practice by unqualified persons. In 1511 an Act of Parliament was passed by which the bishops or other ecclesiastical authorities, with medical advice, were to grant licences to practise in their respective dioceses, as the universities already did for the whole country. Unlicensed practitioners were to pay a heavy fine.

We know nothing about the working of this Act, except that it did not give satisfaction. Seven years after it was passed six physicians, three of them Court physicians, petitioned on behalf of the physicians of London that they might be incorporated as a college. Their leader was Thomas Linacre, who became the first president and the first benefactor of the College when this prayer was granted. He was becoming known all over Europe as a translator of Galen and, indeed, as the most eminent English classical scholar of his time, and he was one of the brilliant group of the friends of Erasmus and Sir Thomas More. He might well have taken this initiative, and have obtained as he did the support of the allpowerful minister Cardinal Wolsey, at some earlier or later time. Times of epidemic were times when unqualified practitioners were apt to multiply. Perhaps it is significant that the year 1518 was a plague year, the first year in which any English Government issued regulations to prevent the spread of an epidemic.

The College's Functions

The charter set up a college which was to exercise four functions in London and for seven miles about it. They were to grant licences to those who were qualified to practise; they were to punish pretenders to medicine; they were to punish malpractice, whether by the licensed or the unlicensed; and,

finally, by inference they were to have an undefined authority over apothecaries. Their constitution belonged to a type that was familiar all over western Europe. In some ways it resembled those of the companies and guilds in which the economic life of the time was organized. The seven-mile limit for the exercise of their powers was one of the several points of resemblance; but the college was never one of the City companies. It had nothing to do with trading or apprenticeship or mayoral and parliamentary elections. The numbers of the Fellows were very small; they crept up to thirty-one by the end of the sixteenth century and to eighty by the end of the seventeenth, but thereafter they sank far below that level, and they did not exceed 100 until well on in the nineteenth century. In its manners and customs the College conformed much more to academic ways than to those of any other section of society. It belonged to what was then a very rare type of body: it was a professional body.

Much of the earlier history of the College was shaped by the exceptional circumstances of London. Few, if any, of the Continental capitals dominated the provinces economically and politically as London did. No other town in the kingdom had anything like a quarter of its population or influence. But, unlike most of the other capitals, it had no university and no medical faculty. In its earliest form the College had nothing to do with teaching. Linacre and his friends no doubt relied on the English and foreign universities to provide all that was needed, and he was a benefactor of medical teaching in both Oxford and Cambridge. The College never has taken any direct part in the instruction of those who are to become physicians; but in the middle of the sixteenth century, probably under the influence of its dynamic president Dr. Caius, himself a benefactor of Cambridge medicine, it began to provide anatomical demonstrations for the London practitioners. From that beginning there grew a great work of postgraduate teaching. The successive endowments of the Lumleian (1581), the Goulstonian (1632), and the Croonian (1749) lectures provided for specialized or at least definite fields. As late as 1819 the College provided from its own resources what was known to be much needed then-lecturing on materia medica. There were times when the lecturing was "a mere compliance with custom," or even became intermittent; but for centuries it constituted the best medical instruction that was to be had in London. If for the most part the lecturers only transmitted what was known, no mean proportion of them announced original research, and the greatest of all the Fellows of the College, William Harvey, gave of his best in this capacity.

Extended Powers

For the first century and a half the College was the only medical body in London. No rival authority was ever created, and only twice, in the late seventeenth century and the late eighteenth, was there even talk of petitioning for a charter to

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set one up. More than that, the College was the only learned society in England outside the universities until 1662, when the Royal Society was founded, largely through the efforts of some of its own Fellows. It was inevitable that it should gather new functions, and with one exception it rendered valuable services in every new function that it undertook. The exception came very early, but its consequences have lasted perhaps to the present day. Only five years after the foundation an Act of Parliament was passed which shows that Parliament believed the new London organization for licensing to be superior to the episcopal system set up by the Act of 1511 for the country at large. The new Act extended the licensing powers of the College over the whole of England and Wales, but they were to be exercised in London. It is scarcely credible that anyone knowing the state of society can have believed that much could come of this. The College did grant licences for provincial practice in small numbers until half-way through the nineteenth century, but the universities granted many more, and for most of the time so did the bishops. Dr. Caius sent emissaries into the country to compel unlicensed practitioners to submit themselves for examination; but this attempt seems to have been a failure and we hear of no such action after 1569.

From the sixteenth century to the early nineteenth the College gave its advice to public authorities when there were grave epidemics, first of the plague and later of the cholera. For a long time it was the only expert body to which medical questions could be referred, and successive Governments put questions to it about the most varied problems. The Army and Navy applied to it for the names of physicians to serve with the Forces, for advice on suitable medicines for tropical diseases, on the preservation of food and ships' timber, on turning salt water into fresh, and many other matters. Other authorities sought its opinion on cases of suspected witchcraft, on the relative merits of Virginian and English-grown tobacco, and, as knowledge advanced, first on inoculation and then on vaccination against smallpox. Occasionally the College made public pronouncements such as were made by the medical faculties on the Continent but not by the universities or any other authority in England.

A continuing function was imposed on the College a century after its foundation when it was made responsible for preparing the London *Pharmacopoeia*. When the first edition was published in 1618 a royal proclamation made its use compulsory for the whole of England and Wales. Altogether the College published ten editions, down to 1851. There was never any lack of critics to find fault with them; but this thankless and unremunerated labour satisfied the fundamental national need of a standard for pharmacy.

Influence on Medical Literature

From an early date the College tried to set a standard in a more contentious field: it tried to control the quality of medical literature. To begin with it could exercise censorship over the writings of its own members, but when books were written by outsiders it could only express or withhold its approval without any sanction. In the late seventeenth century it obtained the legal right to allow or disallow any medical publication whatsoever. Only a few years later Parliament put an end to the whole system of press censorship in all departments, and the College thus lost its new powers. In the late eighteenth century at the instance of Heberden it began to influence scientific standards by a far better method, that is to say by direct example. It joined the ranks of the publishing societies. The last of its volumes of Medical Transactions came out in 1820, and there were only six of them altogether; but they contained many important contributions to knowledge. Not the least of their merits is that the College used them as a means of publishing the results of its own inquiries, in particular the pioneering collection of data about the influenza of 1782.

An Unhappy Venture

Of the new functions not foreseen in the charter the most celebrated in its time was the Dispensary for the poor of London which kept its doors open in the face of disparagement and opposition from 1696 to 1725. On the whole this was an unhappy venture. It evoked a quantity of argumentative and satirical pamphlets in prose and verse, some of them very clever, and literary historians have done notable work in studying these and explaining the obscurer allusions in them. Too often they have forgotten that it was the first of all the dispensaries which have existed in London and that, at the expense of the physicians themselves, it provided free medical treatment for many thousands of patients. The controversy which surrounded it was an outgrowth of a much older dispute, a dispute which arose from the exercise of one of the original powers of the College.

Basic Defects

It was indeed from its original powers and functions that most of the stormy passages in the history of the College began. In 1797 the Lord Chief Justice, Lord Kenyon, used these words in giving judgment for the College in an action which had been brought against it: "By what fatality it has happened that almost ever since this charter was granted this learned body has been in a state of litigation I know not." His previous experience as standing counsel to the College might have taught him the explanation. The litigation was forced upon the College by two unperceived, but we may say inevitable, defects in its foundation.

The first weakness was common to all corporations in the sixteenth century. There was no central administrative machinery to guide or advise or control them: each had to use its privileges as best it could, as one among a number of selfgoverning bodies, each of which was jealous of its own rights. When there were disagreements, as constantly happened, there was no standing machinery to settle them except the expensive and erratic machinery of the courts of law. Parliament might intervene, but almost all of the many attempts of the College to have its troubles settled one way or another by Act of Parliament were unsuccessful. For the most part it had to agree or to litigate with the other corporations. When the College was founded there were bodies in existence which looked at its loosely defined privileges with suspicion: the universities, the London Companies of Surgeons and Barber-Surgeons, the Worshipful Company of Grocers, of which the apothecaries then formed a section, and behind these the great corporation of the City of London itself. In this unfavourable environment the College was charged to introduce stricter standards of medical science and ethics.

Here came its second and peculiar weakness. It was a judicial body, with authority to suppress all those who practised medicine in and about London without having passed its examinations. The standard of its examinations was high: that resulted necessarily from the purpose of its founders. But neither the College nor any other body in the kingdom had any duty or any power to provide London with trained practitioners in sufficient numbers. When it conscientiously carried out its statutory duties, the College seemed to the world outside to be maintaining a monopoly for the small group of its Fellows and licentiates. When the population of the city and suburbs had grown to more than half a million there were not many more than a hundred among them who were legally entitled to administer internal medicines.

Ever since history began the vendors of medicines have taken it upon themselves to give advice to their customers. The

College tried to restore the traditional separation between the three orders of the physician, the surgeon, and the apothecary, with the physician in command over the other two as "the king of the sick." The apothecaries, especially after they were incorporated as a separate City company, maintained by all imaginable non-violent means that they had a right to be, as they were in fact, the medical attendants of the great bulk of the population. It was this conflict of claims which caused the ill-feeling over the Dispensary. The contest between the two corporations lasted for ninety years, until in Queen Anne's time a judgment of the House of Lords put an end to it by deciding in the apothecaries' favour. surgeons were equally successful with less friction and publicity. Nor did the College make satisfactory headway against the empirics. Barristers, judges, and juries between them put so many obstacles in the way of the College's jurisdiction and of its rights as prosecutor that it could seldom obtain a conviction. In the eighteenth century it gave up the attempt and ceased to coerce empirics altogether.

College Premises

Practically everything that I have said so far relates to the history of the College in the first three centuries of its life, before the year 1825, when the building in Pall Mall East was ceremonially opened, the building which has at last been vacated now. That was the fourth College building. There had been three others, and the shortest sojourn in any of them was more than fifty years. All three were in the City of London, all close to St. Paul's Cathedral. We may associate each of them with one of the great men who have made the College famous. The first was the Stone House in Knightrider Street, and this was the house of Linacre himself, who gave it. It contained a room for meetings, with a library above it; but even for the early College it was small. When the Fellows dined there they must have sat elbow to elbow in a way that became less acceptable after Elizabethan times.

Under James I they moved to much more commodious premises at Amen Corner, near where the canons' houses now stand. It was in the anatomical theatre there that Harvey lectured, and it was this building which he augmented by presenting the Museum Harveianum for collections of books and specimens. It was there also that the College was first visited by a reigning sovereign, King Charles II.

Not very long after that visit the building, with practically all its contents, was destroyed by the Fire of London. The lease of the old site could not be renewed, so a new College was built a few hundred yards away in Warwick Lane. appearance of this handsome building is familiar from many drawings and prints, and some of its furnishings, notably the Spanish oak wainscoting of the censors' room, survive to be used in the building where we are standing. It was imposing enough to be one of the regular sights for visitors to London, and a French guide-book of 1693 recommends the tourist to give at least 3d. to the person who shows him round. It would be presumptuous to associate this building with Sydenham's name, because we have no reason to think that, being a licentiate and not a Fellow, he visited it often. And perhaps we ought not to associate it with John Radcliffe, who was sometimes on very bad terms with the College. The most conspicuous of the Fellows who used it was the princely Richard Mead. On innumerable occasions he must have walked up the six steps to the main door, carrying that Gold Headed Cane which is now treasured here. This symbol of the eighteenthcentury physicians passed from him to Anthony Askew, William and David Pitcairn, and Matthew Baillie, and was given to the College by Matthew Baillie's widow.

Neither of the two moves from one house to another within the City signified any change in the nature or purpose of the College: they were due to considerations of practical convenience. For the third move, from the City to the building in Pall Mall East, there were more substantial reasons of the same order and others of greater moment. Ever since the Fire of London new residential quarters for the well-to-do had been spreading beyond the City boundary to the west-Soho, Bloomsbury, and so on. Before the end of the eighteenth century only a minority of the Fellows were still resident in the City, and the college began to look for a site nearer the new centre of gravity of practice and public and social life. The new building was opened in 1825. It was in a central but not ostentatiously prominent position, and among the clubs and other monumental buildings which surrounded it its Ionic portico gave it just enough of the solemn aspect of a temple. More than any of the earlier buildings it was meant to be frequented by visitors from the cultivated and influential classes. Its typical man was Sir Henry Halford, who was president from 1820 to 1844, longer than any other holder of the office. It was his energy and competence that made the removal possible. He soon made London familiar with the name and accomplishments of the College. At the parties from 7 to 9 on Monday evenings, when papers were read and tea was served, the best elements of all three orders of the profession mingled with guests from all the higher walks of life.

Medical Reform

Sir Henry Halford was by nature conservative, but he knew that the immense social and economic changes of his lifetime would necessarily involve some process of medical reform. The process had indeed already begun with the passing of the Apothecaries' Act in 1815. The College had to find solutions for some problems which had already plagued it for too long; for instance, whether the licentiates should be given some share in the government of the College, and whether eligibility for the fellowship should be confined to those with some formal liberal education or thrown open to all those who had the requisite special knowledge of medicine. For many years the College tried to devise solutions on which its own Fellows, the other medical corporations, and the practitioners could all agree. One after another its proposals came too late for the progress of events. The general practitioners established themselves as a new third order, and the sphere of the physician was defined anew. Parliament, reformed in 1832, looked unfavourably on the privileges of corporations. London at last came to have its own university, with a medical faculty and teaching hospitals. Professional organization came into the field as a new factor. The general conditions of life, the railways, the posts, and so on, for the first time made possible a permanent national voluntary body, which, with expert leadership, so established itself as to negotiate on equal terms with the College and even with ministers. The next great milestone in medical reform was the Medical Act of 1858, which created the General Medical Council and drew the outlines of the structure of the profession (though not of the medical services provided and controlled by the Government).

The Medical Act changed the work of the College fundamentally. It ceased to be a London body, and now stood in the same relation to all the rest of England and Wales as to the capital. Its jurisdiction, for long unexercised, was abolished, and along with it the licensing power. Its constitution, which it had already modified slightly by introducing the representative principle, was reformed. Henceforward it contained two grades, the Fellows and the members—the Fellows, continually growing in number, being the constituency which elected the council and officers. So far from losing prestige by these changes, the College gained it. It was no longer a solitary and half-secret body. Its two most widely visible activities were both of a nature to excite public attention and interest. The number of endowed lectures began to increase in 1881, and since then

more than a dozen additions have been made to it, each perpetuating the name of a benefactor and each making its own contribution to the advancement of knowledge.

Tradition of Examining

To the general public the College is best known as an examining body. In this function it works beside the other two corporations, and it was a symbol of the new era that in 1886 Queen Victoria in person opened the old Examination Hall on the Embankment. Examining may seem a humdrum activity. Anyone, indeed, can see that the decision whether a candidate shall practise medicine or not is momentous for him and still more momentous for his potential patients. But few people remember that just and competent examining is one of the vital necessities of our educational system, and no one has ever written the history of examining. If ever that history is written it will give a place of honour to the College. Ever since its foundation it has built up its tradition of examining, sometimes in the face of opposition, and at least once in the face of danger. In the time of George III a rejected applicant for a licence challenged the senior censor to a duel. It was beneath the censorial dignity to fight, but there was a sequel in the law courts, when the challenger was found guilty of criminal libel. It may be surprising but it is actually characteristic of the

College, even in those days, which were not its best days by any means, that in the end it examined the man again and magnanimously admitted him as a licentiate.

That is a trifling incident from the long history of how the College built up its tradition. The period of medical reform interrupted the continuity of its work in many particulars. Several of its functions were assigned to newly created specialized bodies, whether directly or indirectly under the control of the State, employing full-time staffs, both medical and lay, to do work which the busy physicians of the College had done voluntarily. But through all these changes the tradition of the College remained, constantly replenishing a reserve of authority which has enabled it in our own time to intervene decisively in great medical questions. The tradition is indeed far older than the College; it was as guardians of the tradition that Linacre and his companions created the College. It has always had two sides, on the one hand to safeguard the status of the physician and on the other to insist that this status implies obligations. No one will pretend that the College was always right in its interpretation of either one side or the other. There were times when it was too rigid, times when it was too exclusive, times when it was regrettably inactive. But the high claim may be made for it that in no single one of its quarrels, whatever the immediate issue may have been, did it take its stand on the lower of two opposing concepts of the physician's art or of his place in society.

Post-operative Renal Function in Obstructive Jaundice: Effect of a Mannitol Diuresis

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Obstructive jaundice predisposes to acute post-operative renal failure (Clairmont and Von Haberer, 1911; Aird, 1953; Zollinger and Williams, 1956; Dawson, 1964a). Investigations were therefore planned to see whether the presence of obstructive jaundice predisposes to any minor post-operative changes in renal function which might indicate the possible mechanism of this renal failure.

Daily sequential renal function studies were made on 15 jaundiced patients before and after operation. The results were compared with those obtained from a group of 12 non-jaundiced patients undergoing operations of similar magnitude.

As animal experiments have demonstrated, a mannitol diuresis affords a remarkable protective effect against renal anoxia in jaundice (Dawson, 1964a). Pre-operative and post-operative renal function studies were made in a further seven jaundiced patients in whom a mannitol diuresis was initiated just before operation and maintained for two to three days afterwards.

Methods

Pre-operative Observations.—A physical examination was carried out on all patients, with special reference to their height, weight, blood-pressure, and general physical state. Estimations of haemoglobin and packed-cell volume, blood-urea level, a

 Senior Surgical Registrar, King's College Hospital, London. Present address: Harvard Surgical Unit, Boston City Hospital, 818 Harrison Avenue, Boston 18, Massachusetts. 24-hour endogenous creatinine clearance, and the specific gravity, volume, and sodium concentration of each 24-hour urine specimen were carried out two to three days before operation. The creatinine levels were estimated on an AutoAnalyzer using the Jaffe reaction. A mid-stream specimen of urine in males and a clean specimen of urine in females were centrifuged and the deposit examined under a microscope. In jaundiced patients the serum-bilirubin level, prothrombin time, serum-protein level, and the zinc and thymol turbidity tests were done within two days of operation. All the creatinine-clearance levels have been corrected to the value for a body surface area of 1.73 sq. m.

Observations during Operation.—The following observations were made: the length of the operation, the anaesthetic drugs used, regular blood-pressure recordings (at 10-minute intervals), and the blood loss by weighing the swabs. An exact record of the operative procedure carried out was also made.

Post-operative Observations.—Blood and urine specimens were collected each morning and the patient's blood-pressure and general condition noted. Daily observations for seven to ten days were made of 24-hour urine volumes, urine specific gravity, urine sodium concentration, 24-hour endogenous creatinine clearance, blood urea, haemoglobin, and packed-cell volume. A daily serum bilirubin was estimated in the jaundiced patients. In all patients 10 ml. of fresh urine was centrifuged daily and the deposit examined under a microscope. The first post-operative collection period was usually under 24 hours unless the patient had failed to pass urine by 8.30 a.m., when the collection was extended to the next morning.