

**MEDICINE IN MONTREAL
IN THE 'NINETIES***

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Montreal

Medicine in Montreal in the nineties was not one microcosm, as the title might imply, but two almost completely separated units—separated by language, by distance, to a large extent by religions, and also by the sources of their medical inspiration. The French School received its inspiration from Paris, the English School from London, Edinburgh and Dublin.

Laval University in the 'nineties was on St. Denis Street below St. Catherine, while McGill was just below the mountain; but l'Hôpital Notre Dame was on Notre Dame Street, east of Place d'Armes, not far removed from the Montreal General Hospital on Dorchester Street, while l'Hôtel Dieu near Fletcher's Field was only a short distance from the Royal Victoria Hospital on Pine Avenue, but this proximity resulted in an amicable acquaintance rather than a close association.

What I have to say today deals largely with personal recollections which refer chiefly to the teaching of medicine at McGill University and

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its associated hospitals, but by changing the language and the name, it might equally well refer to the history of French Canadian Medicine over the same period.

To be able to look back fifty years to one's entry upon the study of medicine is a dubious privilege, but one cannot cheat the clock nor the calendar, and I have to confess that I came to Montreal as a first-year student in medicine at McGill University in September, 1895, and there may be something to be gained by setting side by side the days that were and the days that are.

Our class numbered a few over one hundred, and we were the second class to enter upon a course of four sessions of nine months each.

A recent addition had been made to the Medical building, and in this new building there was a very large lecture room and the laboratories of pathology, physiology and histology. This building was destroyed by fire in 1907 and the present Medical building succeeded it.

The Royal Victoria Hospital had been opened in 1893, and in our time consisted of the central section and the two turreted wings; and the George W. Campbell Memorial wing of the Montreal General Hospital, which housed the surgical department, had also been recently completed, so that we felt ourselves, as medical students, to be citizens of no mean city.

Of the students entering Medicine in 1895 there were 100 Canadians, 7 from the United States, one from Great Britain and one from Newfoundland, and there were no women students.

It is of interest to compare the most recent class entering almost 50 years later. There are 90 Canadians, 25 from the United States, and six from the British West Indies. In this class there are 12 women students.

The City of Montreal of fifty years ago lay between the mountain and the river.

Students lived in those days within walking distance of the university, and at least 75% of them were in boarding-houses between Sherbrooke and Cathcart Streets, and between Metcalfe Street and Union Avenue. Victoria Street within this area rejoiced in the name of "Bedbug Alley".

The only asphalt pavements were on two blocks of Union Avenue, on a short stretch of Dorchester Street—the fashionable English section—and on a similar portion of St. Denis Street which was the corresponding French Canadian district. The rest of the city's streets were macadamized, deep in dust in summer, and even deeper in snow in winter, with wooden sidewalks on the main streets, and no wooden sidewalks on the more modest thoroughfares.

In winter each householder cleared the sidewalk in front of his home according to his lights, and piled the snow where the gutters were, and after a heavy snow storm, the pedes-

trians on one side of the street were invisible to those on the other side, and even the fur-covered sleighs and fur-capped footmen and drivers might be unseen from the sidewalk on Sherbrooke Street as their sleigh bells tinkled along the middle of the road.

Two students in a double room on Mansfield Street or Cathcart Street would pay from \$14.00 to \$18.00 a month each for their room and board. Some at times would make a vulgar display of wealth by going to Beau's Café or Alexander's on St. Catherine Street and paying 25c for a single meal of three courses.

Street cars ran along St. Catherine Street to Greene Avenue and back to Windsor Street, and down Windsor Street to St. James Street and up St. Lawrence, but shanks mare took us on our lawful occasions even on the trek from the University to the Montreal General Hospital and back again.

Westmount—then called Côte St. Antoine—was just emerging, but only bold spirits dwelt that far out.

Montreal in 1895 with all its suburbs had a population of 318,000 as compared with 1,200,000 in 1944. The street cars in that year ran from Place d'Armes $2\frac{3}{4}$ miles west, $3\frac{3}{4}$ miles east, and $3\frac{1}{4}$ miles north, while last year they ran 9 miles west, 13 miles east and $7\frac{1}{2}$ miles north, and at that time the street railway had 79 miles of track and it now has 379 miles.

"Clinical Medicine", by which is meant the study of the patient at his bedside, as distinguished from the study of his body fluids and his secretions and excretions in a laboratory, reached its high, perhaps its highest point in the time of Howard Senior, Osler and George Ross in Medicine, and of Fenwick, Roddick and Shepherd in Surgery. These men flourished in the eighties, and their successors and students, Stewart, Finley and Lafleur in Medicine, with Armstrong, Bell, Hutchison and Elder in Surgery were here in the nineties, while Shepherd continued his activities through both decades.

It was these men and their assistants who were our clinical teachers, while in the specialties there were Buller, Birkett and the two Gardners, and each one of them could say "I knew Osler". It was a true Apostolic succession in Medicine in its broad sense. These men were our teachers, to be listened to, joked about, laughed at and nicknamed, even as you and I have been, but it required the perspective of years to make us realize that "there were giants upon the earth in those days".

What were we taught? In the first and second years we were taught anatomy, by lectures every morning at 9 o'clock—and that meant 9 o'clock—and by dissection for the rest of the forenoon and in any off hours later in the day, taught it in grinds, by drawings, by reading Gray's Anatomy and Cunningham's Dissector, and perhaps most of all by the fear of Francis J. Shepherd, whose blue-grey eyes and

curt reproof could bring sweat to the face of the toughest, and provoke visceral peristalsis in all others. No man passed from his second year until he knew his anatomy, and all of the senior chronics were still undergraduates because they hadn't passed their anatomy.

The other subjects of the primary years were as excrescences upon the basic subject of anatomy, though actually they had places of equal importance in the curriculum. A student was made or marred in his first two years by his knowledge of anatomy and a McGill student became known everywhere as one who knew his anatomy. Anatomy may have been, as teachers in other departments called it—"A soul-benumbing subject", but it made good doctors, though perhaps its teaching resembled too much the recipe for military training, "Ammer im—Ammer im—Ammer im; if he lives e'll be a soldier".

Physiology was taught by Professor Wesley Mills, a Master of Arts and a frequent visitor to Europe's medical centres, and the author of a textbook on physiology known as "our larger book", but the common or garden medical student was outside his ken, and so was the method by which he could be taught physiology, and what we learned, we learned from his assistants and from Foster's Physiology, one of the pillars of a medical training in those days.

Dr. Gilbert Girdwood was the Professor of Chemistry—the typical professor—rotund, be-whiskered and bespectacled, a man of great learning in his subject, and I well remember the thrill we received when in 1896 he showed us the bones in his hand by Roentgen's miracle ray.

It is worth noting that the first recorded employment of the x-ray in surgical diagnosis was upon a case under the care of Dr. Kirkpatrick at the Montreal General Hospital. He was sent to the Physics building where Prof. John Cox located a bullet in his leg which was removed by Dr. Kirkpatrick in February, 1896. This case was reported in the *Montreal Medical Journal* of March, 1896.

The subject that straddled the primary and the clinical years was materia medica and therapeutics. It was taught by Dr. A. D. Blackader. His lectures were precise, detailed and complete, just as the lecturer himself was punctual, patient and persistent, and the student who attended all his lectures and wrote down verbatim what the lecturer said, might get writer's cramp, but he also got an up-to-date textbook on therapeutics with which he need fear no examiner. No relic of my student days do I value more than the notes which I took from Dr. Blackader. In looking over this notebook, one notices that 5% of the space was given to opium, and an equal amount each to mercury, iron, belladonna and strychnine, but it appears that an equal space was also given to the group of vegetable aromatics, which included mint, sumbul, valerian, ammoniacum, myrrh and

camphor. Emetics trailed these groups, but purgatives distanced them all with about 10% of the total space. They may not all have been useful, and some were useless or worse, but at least the intern of those days was not restricted to a choice between A.B.S. & C. and magnolax. We lived then in an age of digestive ferments, and pepsin and pancreatin were highly regarded in the therapeutics of the digestive tract.

The vitamin fixation had not become universal, and though cod liver oil was often employed it was not given in the spirit of worship which now provides a halo for "bottled sunshine". Arsphenamine 606 had not been drawn from the void, and lues was treated by mercury with chalk, or mercurial inunctions, or with potassium iodide.

An interesting sidelight is cast by a section of these notes devoted to "alteratives" which were defined as "drugs which so alter the nutrition of the tissues as to modify and tend to improve either faulty nutrition or disease existing in them". Included in this group are arsenic, iodine, mercury, gold, colchicum and sarsaparilla. This paragraph might find its parallel in the glowing words used by political leaders to describe their several parties in the present day. The reference to gold and sarsaparilla increases the resemblance.

Just here may I pause to comment upon the laborious life of our teachers. In the days of few telephones and no motor cars, Dr. Blackader lectured throughout the session on therapeutics, and on diseases of children; he was, in the summer-time, the senior attending physician of the Montreal General Hospital; he was the consultant in children's diseases for the whole city, and had as well a large general medical practice. He was an active member of, and a frequent contributor to the program of the Canadian Medical Association, the Association of American Physicians, the Climatological Association and the American Pædiatric Society, and in his later years he was the editor of the *Canadian Medical Association Journal*; and while never robust, he lived on into the eighties and continued his work almost up to the day of his death.

During the same period Dr. Shepherd lectured on anatomy for five mornings a week and was director of the anatomical laboratory, and in the spring session gave a course in surgical anatomy, was senior surgeon in the summer to the Montreal General Hospital, and did all the operating on his service with the assistance of one house surgeon, who did all the dressings. He held a clinic in dermatology once a week, and incidentally, was a consultant in surgery for all of Canada, and to fill in his spare time, was president of the Art Association of Montreal and a noted connoisseur. I often wonder what stuff was put into the men of that generation.

In 1897 and 1898 we came under an unusual group of clinical teachers. James Stewart was

Professor of Medicine. He was slow of gait and slow of speech. He had no graces of face or form. He didn't know what to do with his hands or his feet. He said little, but his grunt was more informing than many lectures, and his instinct in medicine was impressive, and his pithy sayings one could not forget; such as "The first aim of treatment is to prevent death", or "You may give him potassium iodide, it will do no hurt"; or to a student whose speech outran his knowledge—"The less you say, the less you'll have to take back again". Associated with him was an "all star cast"—F. G. Finley, and H. A. Lafleur at the Montreal General Hospital, and C. F. Martin and W. F. Hamilton at the Royal Victoria. All four of these were active long after the age of retirement from teaching, and Dr. Martin and Dr. Hamilton are with us still, to our great happiness and profit. These men were all in the direct succession from the "Palmer Howard, Ross, Osler" school of objective clinical medicine, and were not "the first to cast the old aside, nor yet the last by whom the new was tried".

This mental attitude toward medicine made easier the assimilation of the newer chemistry and the newer physics, out of which grew the intensive study of metabolism and the new cardiology and radiology, all of which are growing so big that they bid fair to forget the pit from which they were digged.

Surgery in the 'nineties was a giant who had waked up, and with Lister, had broken his fetters, but was still rubbing his eyes and had not yet learned his own strength.

Roddick had brought a Lister's carbolic spray to the Montreal General Hospital in 1877 and the antiseptic era was under way, but the modern aseptic technique was still far in the distance. Surgeons still operated with their bare hands, and rubber gloves only became general about 1900, but by no means universal. The hand toilet was a long scrub with a brush and soap and hot water, then immersion of the hands and arms in permanganate solution, then in oxalic acid solution, then in alcoholic solution of mercury bichloride. The patient's skin received the same treatment, and frequently his operation wound was healed before he was cured of his chemical dermatitis. Masks for the surgeon's face and sterile foot coverings were unknown.

The type of cases which came to operation in 1895 gives an idea of the surgical trends of that time. In a hospital population in the Montreal General Hospital in that year of 2,436, there were 448 operations in general surgery, and 118 in gynæcology. There were 35 appendectomies, 2 cholecystotomies, 7 cases of intestinal obstruction, 17 amputations, 35 incisions of glands, of which 28 were inguinal and 6 cervical, 1 perforation of a gastric ulcer, 2 typhoid perforations, 8 operations for cancer of the breast, 7 resections of the ribs for empyema, 23 oper-

ations for hæmorrhoids, 17 skin graftings and 15 herniotomies, of which 4 were for strangulated hernia. In the gynæcological service there were 53 oöphorectomies and 4 hysterectomies. One notes the absence of operations on the stomach or resections of bowel, or removal of the gall bladder. There were no operations upon the central nervous system, no nephrectomies and no prostatectomy.

Obstetrics was taught us in the late 'nineties by Dr. J. C. Cameron, a gentleman and a scholar, who used the English language well, and whose word pictures still linger in one's memory, but our practical and clinical training was of the scantest.

The old Maternity Hospital was on St. Urbain Street below Dorchester, and my clinical experience consisted of watching, with five classmates, the resident deliver six normal babies, affairs in which we had no hand, and it was little wonder that I approached my first obstetrical case in a mining town of British Columbia with some trepidation, but nature was kind.

In this day and age, when the man in the street, as well as the woman at the tea party, speaks freely of coronary thrombosis, so freely that some call it "a cornery" and others "trombosis", it staggers us somewhat to recall that no such diagnosis was made in the 'nineties, and that the first clinical diagnosis of the condition was made by Dr. J. H. Herrick of Chicago in 1912.

It is true also that carcinoma of the lung, now rarely absent from the men's medical ward, was also unrecognized in the 'nineties and later. On the other hand, amyloid disease, now a rare condition in our hospitals, was rarely absent from surgical wards in the 'nineties as a sequel to the numerous cases of bone tuberculosis and chronic osteomyelitis which always occupied a sizable proportion of surgical beds.

Inguinal adenitis as a sequel to chaneroid was never absent from the surgical wards, and these cases were the intern's introduction to operative surgery, and their later daily dressings were his plague. My surgical friends tell me that these cases are no longer seen.

Tuberculous glands of the neck were also frequent customers then, but a rarity now. One shivers when he thinks of the almost invariable presence of cases of open tuberculosis in both medical and surgical wards in the 'nineties, and we also recall the considerable number of interns and nurses who developed tuberculosis during their hospital residence.

It is difficult for us in this year of grace 1945 when we see a patient admitted with pneumonia, put to bed, given a sulfonamide or penicillin, a sedative, and a good prognosis, to visualize the patient with pneumonia in 1898, and to realize that 50% received strychnine, 35% received whiskey, all got some expectorant, none received morphine or any sedative except a linctus of codeine, two-thirds had linseed

poultices to the chest, and one-third had ice bags, most received calomel and soda as an overture, and 30% died; and lest the surgeons present should jeer at the needless medication, I quote from my notes of Sir Thomas Roddick's lectures on surgery in 1897 the following paragraph on the treatment of erysipelas:

"Tr. ferri mur. 15 - 40 m. doses. For temperature quinine may be added. Sod. salicylat. as a specific has given good results. Quinine c antipyrin or cold baths for temperature. Pilocarpine gr. 1/6 may abort the disease. Camphor gr. i hypodermically is a useful stimulant, as is ether hypodermically, while injection of carbolic 1 - 10 around the blush, or strong solution of iodine around the patch, may abort the disease."

It would be difficult to estimate the influence upon medicine in Montreal and this continent of two figures who were our teachers in the 'nineties, but who were not clinicians, but pathologists. One was short, plump and dapper, trained in physiology at Cambridge, and with a Cambridge accent that was a part of himself, whose lectures were a treat both in matter and in manner. By him, J. George Adami, we were soundly taught the fundamentals of pathology. The other, Wyatt Johnson, a true disciple of Osler, was as tall and lank and dishevelled as Adami was the opposite. For him, the world didn't exist when his brilliant mind was in pursuit of an idea, like a comet blazing its way through space. To these two unlike men none of us realize how much we owe.

The major plagues in Montreal in the 'nineties were tuberculosis, intestinal infections in children, typhoid fever and diphtheria, and a comparison of these figures in 1895 and 1944 are revealing. The resident population in Montreal proper under the supervision of the Municipal Health Board was in 1895—237,100, while in 1944 it was 972,000. The death rates for these two periods compared per 100,000 were:—

| | 1895 | 1944 |
|------------------------------------|-------|------|
| Tuberculosis..... | 235.6 | 61.8 |
| Intestinal diseases of infancy.... | 467.7 | 34.3 |
| Typhoid fever..... | 18.6 | 0.9 |
| Diphtheria..... | 176.3 | 2.8 |
| Smallpox..... | 0.0 | 0.0 |

We must remember that the great epidemic of smallpox described by Osler, in which over 3,000 people died, occurred in 1885, since when vaccination against smallpox had been total in Montreal.

While acting as intern in medicine to Dr. Finley in 1899, I recall several occasions on which there were no cases in the ward for clinic except typhoid fever; but the mortality of about 10% was as nothing to the slaughter of the innocents in the summer epidemics of intestinal infection among babies.

We who now take chlorination, pasteurization and refrigeration for granted, should not forget that each one of these life-saving measures

came up the hard way through ignorance, through medical and municipal "laissez faire", and through entrenched commercial cupidity, and now at the end of the road, we salute our paediatric friends as those who have been the greatest life savers in the medical community.

It may be of interest to remember that we of the 'nineties, who took our "fin de siècle" in medicine and surgery very seriously, had horse-drawn ambulances; the surgeons didn't wear gloves; anaesthesia was a choice between chloroform and ether; infiltration anaesthesia and spinal anaesthesia were unknown; lumbar puncture was a curiosity; veins were never entered by needles either to collect specimens or to give fluids for medication; transfusions of blood were not given; bronchoscopy, oesophagoscopy and cystoscopy were not done; the basal metabolic rate had not been heard of; thyroid surgery only concerned cysts and tumours; the so-called "toxic goitres" were then "medical" and not "surgical" diseases; preoperative treatment of surgical cases was by starvation, purgation and dehydration, but not sedation; insulin for diabetes, and liver therapy for pernicious anaemia were not even imagined; the blood pressure instrument had not been invented; a department of metabolism in a hospital had not been conceived; women students in medicine were unknown at McGill; interns did all the blood counts and clinical chemistry, and there were no young women technicians. If there were married interns they were known only to themselves and their consorts. A request for a week-end holiday by an intern would have resulted in a court martial, and the intern's hours of duty were like the sailor's—"six days shalt thou work and do all that thou art able, on the seventh holystone the deck and scrape the cable". But in spite of the things doctors didn't have, they had their five senses and the wits which the Lord gave them, and by using these they were by no means helpless.

People in the 'nineties didn't enter hospital lightly. In 1895 there were 2,416 admissions to the Montreal General Hospital, and in 1944 there were 12,539; and at the Royal Victoria there were 1,841 admitted in 1895 and 18,256 in 1944.

In 1899 there were thirteen rooms for private patients at the Montreal General Hospital, and at that time if one required a special nurse it would cost him \$2.50 a day, and for that remuneration his nurse would work only nineteen hours.

It is trite to say that great changes and some improvements have taken place in medicine since the 'nineties, and I hope that when I address this gathering fifty years hence, we will all realize that more changes and even greater improvements will be there to encourage us.

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