RECOLLECTIONS OF THE ORGANIZATION AND GROWTH

of the

AMERICAN THYROID ASSOCIATION

by

Gordon S. Fahrni

The American Thyroid Association was born in 1923 at a time when goiter was a common affliction in many parts of this Continent and endemic in some areas. Its birth was a response to a need across the country to increase our knowledge of the whole subject and improve the care of people so afflicted. The original name of the Association was "The American Association for the Study of Goiter". Some years later it was changed to "The American Goiter Association" and later to "The American Thyroid Association".

It has been suggested that I as a Founder Member might be able to supplement the rather scanty records of its early years most of which were destroyed by a fire.

My hope in presenting this story is that I may add something of value to the Archives of the American Thyroid Association, something that will enhance its scope as an historical repository of facts and events in its early years.

In an effort to describe the thyroid picture at that time and its evolution over the years, I ask your sympathetic understanding for bringing my personal experiences frequently into the preparation of this report.

My remarks will apply to the thyroid picture as I saw it from 1912 to 1950, the years that I carried on a practice in General Surgery in Winnipeg, Canada.

These years cover a period of time that represents a succession of changing thought and practice in the thyroid field. They also include the years that I was closely associated with the growth and development of our Thyroid Association, which kept pace with and helped to stimulate and develop the sequence of changes over the years of which we are all so proud.

As an interne in the Winnipeg General Hospital 1911 - 1912, I became interested in goiter primarily because of the high mortality and morbidity rates in surgical treatment and because of the lack of any useful alternative medical care.

Operative technique left a lot to be desired resulting in prolonged operating time and excessive loss of blood at a time when blood transfusion was not available. These shortcomings applied to surgery of both the adenomatous and hyperplastic types, but it was in the latter Graves' Disease that the real hazard was presented. The danger of course was the post-operative response in the form of intensified hyperthyroid manifestations, building up to what was commonly known as a "thyroid storm" or "crisis" and often death in 24 - 72 hours following operation - a shocking emotional experience, not only for the surgeon, but also for all in attendance. Such a crisis has to be seen to be fully understood. The patient becomes restless, increasing to a "threshing about in bed state". Pulse becomes rapid and small gradually disappearing. Temperature rising gradually to 104° or 105° F, profuse sweating from burning skin and as these conditions reach a crescendo, the alert anxious patient loses consciousness, the pulse has gone - really a death from exhaustion.

In following up my interest in the thyroid disease over the next few years, I found that much the same conditions in the thyroid field existed across the country in that surgeons were the people concerned with the care of both adenomatous and exophthalmic goiter.

Surgeons with special interest in this field were making their contribution toward a better showing in the surgical care of goiter which in the second decade of this century resulted in an improved morbidity and mortality experience. George Crile of Cleveland and C.H. Mayo of Rochester, Minnesota, were leaders in this field on this continent.

In an attempt to get the toxic diffuse goiter in better shape for operation, various measures were taken. Perhaps the chief of these was ligation of the superior thyroid artery on one side and sometimes a week or so later, the other side was done. These were comparatively simple operations and usually resulted in definite improvement, so that thyroidectomy could be done more safely.

It was in this heated atmosphere that a breath of fresh air was wafted to the worried thyroid surgeon when Henry S. Plummer of Rochester, Minnesota, in 1922 reported his experience in Exophthalmic Goiter with the use of Lugol's solution in preparing these patients for operation. His suggestion was quickly taken up by surgeons across the land. The improvement in these patients following a week or ten days of iodine administration was so great that some of the more cautious physicians carried these people until a relapse occurred. The lesson however, was soon learned by all and the mortality rate from operations was greatly reduced.

This contribution is all the more noteworthy in

that it was made in the face of custom and tradition. Some of the leaders in Europe had tried iodine administration in the treatment of adenomatous goiter many years earlier and came out with the pronouncement that the use of iodine was contraindicated in the adenomatous and exophthalmic types of goiter. This conception was so universally accepted that it took a few years to convince the more cautious and conservative schools that preoperative iodine therapy had opened a new door to a much easier and safer surgical management plan.

We are all deeply indebted to Henry S. Plummer, an internist and a Past-President of this Association, for making it possible for the surgeons of the world at that time to view with comparative equanimity and confidence the surgical care of Graves' Disease with a great reduction in the incidence of the fearful complications of a "thyroid crisis". He was a great gentleman, a keen scientist and a true friend.

We were all familiar with the hyperplastic picture of thyroid tissue under the microscope in Graves' Disease, but what was the picture after such clinical improvement when Lugol's solution had been administered for 10 days? To ascertain this I took a biopsy of thyroid tissue while ligating a superior thyroid artery on a very sick woman with Graves' Disease. She then took Lugol's solution minums 15 t.i.d. for 10 days before thyroidectomy. The contrast in the microscopic picture of the two periods was striking and revealing. The hyperplasia with high columnar cells had changed to a thyroid resting state, the acini were distended with colloid and the cells flattened. This picture reflected the clinical improvement in the patient.

During my early years the toxic thyroid problem was poorly understood by the medical profession and the young surgeon trying to do his job in this field was under critical surveillance. Two local experiences in my home area might help to elucidate this attitude.

I had been able to do 50 successive thyroidectomies without a death and I proudly reported them at a Winnipeg Medical Society Meeting. One of our pioneer and leading internists got up to discuss my paper and criticized me, largely on the grounds that hyperthyroid people did not die without operation and those surviving thyroidectomy were rarely cured. He thought I was misguided in operating upon them. In my reply I asked the President for an opportunity to answer Dr. Hunter at the next meeting a month hence. I was able to confront him with a report on 10 deaths - seven from exophthalmic goiter and three from congestive heart failure secondary to toxic adenomatous goiter. Most of these I had observed on the medical teaching wards. From then on my critic was one of my best supporters over the years.

The thyroid cardiac patient was just beginning to be recognized and our Medical Faculty's first cardiac specialist was a great help to me. Dr. A.J. Burridge used to take me through the medical wards and it was surprising how often among the cardiac patients we were able to spot a toxic nodular goiter. The wonderful response of this group to thyroidectomy helped a great deal to sell thyroid surgery to the profession and this made the path of the thyroid surgeon much brighter.

During the early years the original work of such pioneer researchers as Marine and Kimball brought new light to bear on the part played by iodine in prevention of adolescent goiter. The geographical goiter belts were the first to become keenly interested and with the co-operation of the medical profession and the municipal and state health authorities, the importance of iodine as a preventive measure was established. The present low incidence of adolescent goiter compared to the early nineteen twenties is recognition of the virtue of their efforts.

It was in these early years that the Minister of Health for our Province of Manitoba asked me to organize a canvass of the incidence of goiter in the school children of a large part of the city of Winnipeg. The incidence proved to be 40%. Arrangements were made for the treatment of these children. Thyroid Therapy over a long period of time was very successful in those who continued treatment for a year or more.

It was in this general perspective that our Association was born in 1923. E.P. Sloan had invited a few surgeons whom he knew to be interested in goiter to meet in his home city, Bloomington, Illinois. From this nucleus "The American Association for the Study of Goiter" was organized. E.P. Sloan was our 1923 - 1924 President and the first regular meeting was held January 1924 in Bloomington.

J.R. Yung in his Presidential address in 1936 gives an account of the early history of our Association, which leaves me free to relate some of the less official events and follow the growth of our Organization and its participation in the evolution of thyroid

knowledge and care over the first three decades.

The record shows that the Founder Group of our Association consisted of surgeons only, from the United States and Canada, brought together in the common cause of improving our knowledge and stimulating the development of research and treatment of diseases of the thyroid gland. The objective and indeed our Motto was set out in the following words, and I quote - *"To bring together each year men who will present the best that has been thought, said and done in the study of goiter and its associated problems. Its aim is to establish a forum where all subjects pertaining to goiter may be presented and fully discussed. Members of State and Provincial Medical Societies are eligible and cordially invited to participate as attending members"*.

The first decade in the life of our Association typified somewhat, that of a Surgical Club, the members of which assembled each year to compare experiences and to work toward a broader perspective. Basic in this plan was to bring into membership the other branches of our profession interested in thyroid problems. In this we were successful and some of our first recruits were internists and research workers in this field, then followed endocrinologists and biochemists and as the years went by our membership increased and broadened to include all phases of effort in thyroid problems.

The practical surgical club aspect of the first meeting in Bloomington, Illinois, was perpetuated over the next few years in that the first day of the meeting included a series of thyroid operative clinics in which different visiting surgeons participated.

This feature of the programme had the merit of teaching and demonstrating better surgical technique, as well as the diagnosis and preparation for operation of the different types of goiter.

During the early years of the life of our Association it was decided by the Executive Committee and approved by a meeting of the membership to publish each year as a separate volume, the proceedings of the Annual Meetings. This practice was continued until sometime in the nineteen fifties when at a business meeting it was discontinued by a majority vote of the members. I confess to opposing the motion and voting with the minority. A review of those annual transactions covers pretty well a fair picture of what was being thought and done in the thyroid world over those years. The volumes provide a good library on the subject of that period of time.

After the meetings in Bloomington in 1923 and 1924, the Association met each year elsewhere. Atlantic City in 1925 and Louisville in 1926 hosted the meeting under the Presidency of E.G. Blair. The 1927 meeting was held in Philadelphia. Unfortunately, our President, Emil Goetsch, was ill and the President-Elect, G.S. Fahrni, took the Chair.

In 1928 we met in Denver, Colorado. It was my Presidential year and we invited Professor Burghard Breitner, a distinguished surgeon in Vienna to be the guest speaker at our annual meeting.

He was met in New York by one of our members where he was entertained at important Surgical Clinics. This was repeated in Chicago and Rochester, Minnesota from where he was driven to the

Twin Cities, Minneapolis and St. Paul, where the annual meeting of the American Medical Association was in session. From there one of our members took him by automobile to Denver. He was a welcome acquisition to our programme. To round out his trip we sent him home via San Francisco, Los Angeles, New Orleans and New York and he was entertained in each city by one of our members. Our Treasurer was not in position to meet the costs of this round trip but a few of the old reliables, by which I mean, the early dedicated members of your Association took care of the matter.

In 1929, the meeting was held in Dayton, Ohio, under the Presidency of S.D. van Meter. The programme was a combination of clinical and operative work and scientific papers.

In 1930 the meeting was held in Seattle, Washington, with E.R. Arn as President. A group of members and their wives had chartered two Pullman cars and travelled via Duluth, Minnesota, to Winnipeg where by arrangement I and my confreres had planned a day's entertainment. The ladies spent the day on scenic drives and at teas while the men were kept busy seeing our hospitals and teaching facilities and attending operative clinics. The latter began at 8:00 a.m. in the Winnipeg General Hospital. We kept three theatres busy until 10:30 a.m., the visitors participating freely in discussions and demonstrations. After coffee we all went across the Red River to another teaching hospital, the oldest in our Province. This is St. Boniface Hospital where beginning at 11:00 a.m. another clinico-pathological operative show of the different types of goiter was in progress.

After lunch at the hospital, the late afternoon

provided scenic drives and private entertainment. An evening dinner with the University and Medical Faculty officials attending, completed a busy day. The group tired but happy sought rest and solace in their Pullman beds. They awakened in the morning well on their way to Jasper Park, Alberta, where a pleasant day was spent in the Northern Rocky Mountains. A feature of the Seattle meeting was a clinical conference at the Virginia Mason Hospital arranged by our local host and Association Vice-President; Tate Mason. He was an energetic and enthusiastic host and not long afterwards while President-Elect of the American Medical Association, he passed away from a tragic illness before being inducted into that prestigious office.

It was at this meeting in Seattle that one of our Founder Members and Past-Presidents of our Association, S.D. van Meter of Denver, Colorado, offered to donate a cash prize to be awarded annually for the best essay on thyroid gland. This was to be an anonymous award and it remained so until his death a few years later, after which your Executive decided that it should be known as the van Meter Award. Interest in this Scholarship has grown over the years and the cumulative benefit to the thyroid field has been great.

It was at the meeting in Kansas City in 1931 under the Presidency of K. Kinard that the Committee on Nomenclature brought in its report on the classification of Goiter as follows:

Type 1. Nontoxic Diffuse Goiter
Type 2. Toxic Diffuse Goiter
Type 3. Nontoxic Nodular Goiter
Type 4. Toxic Nodular Goiter.

This classification was approved by your Association as one of general practical value. It was not suggested that the old terms for different

varieties of the above groups should not be used.

It was also at this Kansas City meeting that the programme was opened by a clinical pathological conference. This was organized and chaired by G.S. Fahrni and among those participating were Emil Goetsch, Allen Graham, W.O. Thompson, Henry Plummer, Harold Marsh, F.B. Dorsey and S.D. van Meter - three internists, one pathologist and three surgeons.

In 1932, our Association met for the first time in Canada in Hamilton, Ontario. M.O. Shivers was our President and J.K. McGregor was a very generous and entertaining local host.

In 1933 the meeting was in Memphis, under the Presidency of Henry S. Plummer. At this meeting E.P. Sloan gave a report on behalf of the American delegation on The Second International Goiter Conference in Berne, Switzerland. He, on behalf of our Association had extended an invitation to hold the next International Goiter Conference in Washington, D.C., in August 1937, and the invitation was accepted unanimously.

R.M. Howard, a great stalwart in the interest of our Association was President at the Cleveland meeting in 1934.

In 1935 Allen Graham presided at the Salt Lake City meeting. One of my best remembered incidents at this meeting was to be told early on the opening morning that Dr. Plummer who was to have conducted a goiter clinic at 9:00 a.m. had been delayed "en route" and that I was to take his place. The different types of goiter were well presented which made my task quite easy.

The 1936 meeting was held in Chicago under the Presidency of J.R. Yung a Charter Member and for many years our corresponding

Secretary. To him we owe a lot for his energetic dedication to the interests of our Association.

I did not attend the 1937 meeting but the 1938 meeting was held jointly with the Third International Goiter Conference in Washington, D.C. September 1938, under the Chairmanship of our President F.H. Lahey. This meeting has been well documented for our Archives.

I have no personal recollection of the 1939, 1940 and 1941 meetings as Canada went to War in 1939.

At the meeting in Boston in 1941 John Pemberton was elected President and held this office until the Chicago meeting in 1946 as no meetings were held in the interval because of World War II.

During the nineteen twenties and thirties most of our interest in the thyroid field was concentrated on diagnosis preparation for operation and operative technique. Basal metabolic rate estimations became prominent in the diagnostic field. Iodine administration as a preoperative measure in toxic goiter became routine. Local anaesthesia was used by many, often supplemented by some form of gas and oxygen, but it was recognized that always these patients required a plentiful supply of oxygen.

In technique many points were featured, each designed to help reduce the operative load on the patient. Some of these were gentle handling of tissues and good haemostasis, recognizing that these patients react badly to excess loss of blood. A shortened period of operative time was desirable always in balance with accurate near bloodless technique.

During the nineteen thirties particularly the close association of the Pituitary and Thyroid Glands was demonstrated.

It was during the War years that the use of antithyroid drugs in thyrotoxicosis was introduced and this marked a new era in the treatment of toxic goiters. Thiouracil was in the forefront of this advance until it was found that serious complications were not uncommon. Some of these were agranulocytosis, skin lesions, fever and other objectional development. Propylthiouracil was then introduced and found to have fewer undesirable complications.

Like the earlier introduction of Lugol's solution in the early twenties, the improvement of these toxic cases was so great, that for a time some observers were hopeful that it might be a cure that would make surgical interference unnecessary. It was soon noted that this was often not the case and that its use was a valuable aid in preoperative preparation. The use of this drug became a valuable addition to the surgical management of toxic goiters and the mortality rate fell accordingly.

In 1947 Blair Mosser, presided at our annual meeting in the fair city of Atlanta, Georgia. On this occasion our local host was T.C. Davison, our corresponding Secretary. He and his local Committee were quite disappointed in that the dogwood trees were not yet in bloom due to a backward spring. They more than made up for this by their wholesome hospitality, one feature of which was a delicious buffet supper for all in the beautiful Davison home and grounds.

May I relate a humerous incident that happened on our arrival, the mid-afternoon before the meeting. While checking

in at the Headquarters' Hotel, I think it was "The Ambassador", my wife and I with the Arnold Jacksons met some other members at the desk. As we had not seen some of them since before the War, we decided to visit "The Hunt Room" for a get together toast. We asked the desk clerk to send down any members that came along soon. In a short time we realized that the response to our invitation was more than generous. An old friend of mine from up state New York and I were haggling over the bill which had grown to a tidy sum. We decided to toss a coin and I lost. In a joking manner Fred minimized the transaction from a point of view of the net cost to either of us. I quickly realized the fortunate position of the American physician income-tax wise, compared to our Canadian status in that we were allowed no entertainment allowance. I handed him the chit which he accepted gladly when so informed.

In 1948 the meeting was held in Canada for the second time. The host city was Toronto but unfortunately our President J.H. Means was unable to be present because of illness.

In 1949 in his home city of Madison, Wis., Arnold Jackson presided over a very successful meeting. It was held in "The Lorraine Hotel" and I recall the registration was the highest of any meeting up to that time.

The 1950 meeting in Houston, Texas, under the Presidency of S.F. Haines concludes the period of time under review in this report.

In summarizing the sequence of changes from 1923 to 1950, I shall mention only briefly some of the more prominent features in this picture.

The B.M.R. which was a standby in earlier years has been pretty well supplanted by other tests such as Protein Bound Blood Iodine estimation and still newer diagnostic aid tests being developed just over the horizon.

The clinical use of Radio Active Iodine has been under investigation for only a few years. The Boston group first reported their work in this field to our Association at the 1946 and 1947 annual meetings. Now only three years later it would appear that its use in Graves' Disease may soon largely replace the need for surgical treatment. All forms of nodular goiter still remain a challenge to good surgical care.

Since the introduction in 1922 of Lugol's solution in the preoperative preparation of toxic goiters the post-operative mortality rate has come down. From 1928 to the introduction of the anti-thyroid drugs I have reported 5,218 successive subtotal thyroidectomies with the loss of 35 patients, a mortality rate of approximately 7/10 of 1%. Following this 689 successive subtotal thyroidectomies were done without a death. This latter group reflects the use of propylthiouracil pre-operatively in all hyperthyroid patients. These personal figures are given with the thought that they reflect in a general way the picture in other thyroid centres across the country and because they represent a period of time just before the beginning of the general use of radio-active iodine in the treatment of toxic diffuse goiter.

I would like now, to jump from 1950 to 1971. Today the value of the Radio Active Iodine Isotope has largely supplanted surgery in the care of Graves' Disease. This is a tribute to both laboratory and clinical research.

In any report on the part played by the American Thyroid Association in the goiter field, its influence and direction in organizing and participating in the International Goiter Confer-

ences should not be overlooked. Theodore Winship, a valued member and officer of the Association has written a record of these meetings for our Archives.

In reviewing the changing character of our membership from 1923 to 1971, it is found to parallel closely the change in programme content of the Annual Meetings and this reflects in turn the evolution of our knowledge of the thyroid gland and its functions.

The founding members of 1923 were all surgeons. They realized how little was known of the physiology of the thyroid gland and while doing what they could to meet the challenge of the day in the form of disabling goiters, they also promoted a campaign to enlist the interest of their colleagues. A response to this effort was the founding of "The American Association for the Study of Goiter", now known as "The American Thyroid Association".

We were soon successful in recruiting first internists, then endocrinologists, soon the biochemists, physiologists and research workers became interested, all of which added to the strength and prestige of our Association. This influx from all disciplines of medicine touching on the thyroid has changed the whole picture gradually, but insidiously since 1923 to 1971 - nearly 50 years.

As already stated, your Association began in 1923 with surgeons constituting 100% of the membership. As late as 1946 they had dropped to 80% only. In 1963 the percentage was 43% and today according to the 1971 Membership Directory - "the colorful sawbones" account for only 20%. The other specialties break down as follows: Internists 33%, Endocrinologists 23%, Research Workers 6%, Pathologists 4%, Biochemists just under 4%,

Radiologists just under 3%, Paediatricians 2%. Five other disciplines represent the remaining 5% of membership.

The figures just given apply to the active membership which contrast strikingly with those of the Senior Membership: Surgeons 75%, Internists 16%, Endocrinologists 5%, Pathologists 4%. In the senior membership only four specialties are represented while in the active membership there are thirteen.

In concluding this review of the changing picture in the thyroid field a decade before and during the life of this Association, I would like now to pay tribute to the even earlier pioneers in the thyroid field, both of this continent and Europe. I think it is fitting to remind you again of the part played by surgeons over the years in this field, and particularly during the early life of "The American Thyroid Association".

In their names may I make a plea to you in the words of a young Canadian physician, John McCrae, just before his death in World War I on the battlefield of Flanders, and I quote - *"To you from failing hands we throw the torch, be yours to hold it high"*.