

THE NOVA SCOTIA MEDICAL BULLETIN

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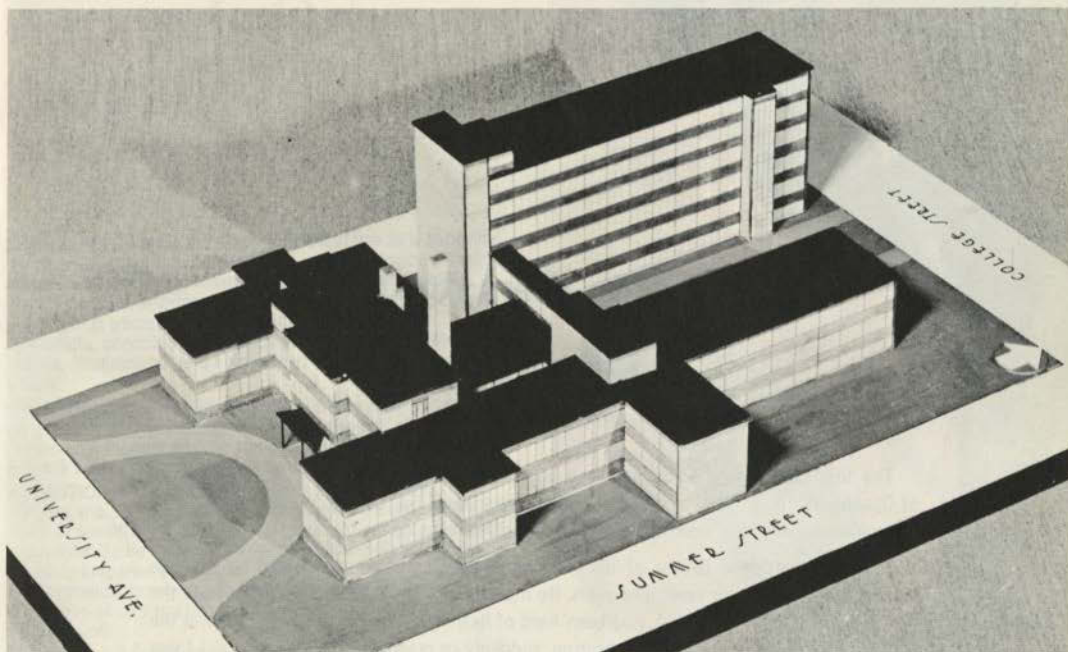
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The Grace Maternity Hospital - 1922 to 1972



Fifty years ago the Grace Maternity Hospital opened its doors to maternity patients of Halifax and the surrounding area. Very early in its career, The Grace became the centre of obstetrical teaching for all medical students in Dalhousie Medical School, and post-graduate centre for all doctors in the Maritime Provinces. Under the guidance of Dr. H. B. Atlee, the Hospital grew and prospered. As medical science progressed, so did the Grace Maternity Hospital.

Two firsts in medical progress can be claimed by this maternity centre. It became the first hospital in North America to adopt early rising of the maternity patient — and the first in Canada to initiate the programme of natural

childbirth. This latter policy was responsible for the present philosophy of the hospital — that "having a baby is a family affair". From the time the mother enters the hospital, she is made welcome. Her husband is encouraged to stay with her throughout labour and delivery. She is encouraged to handle her baby early, and soon after the delivery the family are introduced to the new arrival. It is a happy hospital.

The idea or concept of the family unit is carried over into the Outpatient Department. Here the mother may receive the usual prenatal and postnatal care, during which time she has available to her instruction in childbirth

training, advice regarding good nutrition during pregnancy, training in prenatal exercise by Physiotherapists, and a follow-up in the home by a physiotherapy student. Following delivery, the patient is encouraged to return for her post-natal check up, at which time she may bring her baby to the Well Baby Clinic for examination and advice. During her post-natal checkup the mother now has available to her advice on family planning and contraceptive techniques. The hospital Social Worker works in close association with our clinic, and any patient requiring advice or help is referred to the Social Worker. We find that this is getting to be a real problem, and the need is increasing daily.

Society has now accepted the need for birth spacing and family planning. The clinic at the Grace Hospital has pioneered this effort in the Maritime Provinces.

The rapid expansion of new knowledge in the field of female endocrinology and the investment and management of infertility has made it desirable to operate a systematic referral clinic for patients suffering from infertility due to endocrine disorders, as well as disorders due to structural

and genetic problems. Associated with this clinic is a large research laboratory.

The staff of the Grace Maternity Hospital is highly trained and selected for their special interests. Because of this, the hospital very early became the referral centre, not only for Nova Scotia, but for all the Atlantic Provinces. Here one finds facilities available in few, if any other hospital in Nova Scotia. The neonatal intensive care unit — the high-risk floor — the monitoring of the high-risk patient in labour — all of these units are manned by specially-trained individuals.

In brief then, the Grace Hospital provides a community service to the people, a referral centre for those requiring extra help, a medium for the training of medical students, nurses, doctors and other para-medical personnel — and finally, creates an atmosphere for research into newer methods of diagnosis and treatment for the pregnant mother and her newborn baby. □

W.R.C.T.

Fifty Years Ago*

CHIROPRACTIC.

Its Wonderful (?) Origin.

The first Chiropractic adjustment was given in September, 1895, by Dr. D. D. Palmer of Davenport, Iowa, U.S.A. Like many other new ideas it was a mere coincidence the way it came about, and later developed into a well defined science.

Harvey Lilliard, the janitor of the building where Dr. Palmer conducted his practice had been stone deaf for seventeen years. By mere chance Dr. Palmer happened to ask the man, Harvey: "How long have you been hard of hearing?" "Seventeen years, sir, was the answer." "How did you lose your hearing, suddenly or gradually?" "Suddenly, sir! I was bending over scrubbing the floor when I felt something snap in my spine, and in two or three days my hearing was completely gone." This gave Dr. Palmer food for thought, and next day asked the janitor if he would submit to a spinal examination, which was readily consented to.

Placing his man prone upon the floor, he administered the first Chiropractic adjustment in a premature or crude way. In other words he hit all the high places and by mere accident struck the vertebra that caused the trouble. This was repeated daily and in a few days Harvey could hear sounds, and after a time enjoyed complete restoration of his sense of hearing. □

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Surgical Correction of Deformities of the Facial Skeleton

F. W. Lovely, D.D.S., M.S., F.R.C.D.(C),*

Halifax, N.S.

Major disproportions of the facial skeleton occur as the result of genetic factors or alteration of various growth centres from infection, trauma, habits or influence of soft tissues such as the tongue, etc.

Surgical correction of most of these deformities is possible. Complete evaluation of each case is essential.

First, the etiology must be considered. Relapses may occur if all influencing factors are not considered. An

example of this is to correct a prognathic mandible in the presence of a macroglossia, which, if not reduced in size, will result in a prompt relapse to prognathism.

The second major consideration is the age of the patient. The growth of the facial skeleton follows a definite pattern. During the period of 10 years to 15 years of age, the maxilla may appear far too large for the mandible. However, the condylar growth centre becomes active again

Micrognathia

This can exist in the mandible genetically or as the result of trauma or infection of the condylar growth centre. Its correction involves an advancement osteotomy of the body or ramus of the mandible. (Figures 1 and 2)



FIGURE 1



FIGURE 2

*Professor of Oral Surgery, Victoria General Hospital and Dalhousie University.

at age 17 in females and age 19 in males. This must be considered and if the discrepancy is only minor, surgery should be deferred until growth is complete. Major discrepancies may be corrected at any age, taking into account and planning for future growth.

The third consideration is a thorough analysis of cephalometrics to determine where the defect exists. In some instances this determination is obvious to all; however, in many patients the visual and clinical examination will be deceptive and without accurate measurements one cannot ascertain if the discrepancy is an overdevelopment of the mandible or an underdevelopment of the maxilla. This is particularly the situation for cleft palate patients.

Prognathia

This is a true overgrowth of the mandible or a relative overdevelopment in relation to underdevelopment of the maxilla. For a true mandibular prognathism, correction involves retro-positioning by an osteotomy (bone removal) of the body of the mandible, or sliding osteotomy of the ramus of the mandible, depending upon which improves the functional occlusion of the teeth as well as the profile of the patient. (Figures 3 and 4)

The next consideration is how much functional impairment exists. Occasionally, patients will have a complete absence of occlusion with the exception of one tooth contact.

Treatment should be directed at restoration of function and establishment of aesthetic harmony. In certain disorders such as Crouzon's disease, whereby the child presents with the facies of a Pekingese dog, aesthetics may be the major consideration and surgery should be performed on this basis alone.

A final consideration is the systemic health of the patient. Certain disorders preclude the normal healing of bone and would therefore preclude surgery.

Some deformities that lend themselves to surgical corrections are reviewed in this article.



FIGURE 3



FIGURE 4

Microgenia

This is the absence of a chin prominence. It may occur separately or associated with total underdevelopment of the mandible. If it is the only defect, it may be corrected by advancement genioplasty or onlay augmentation. The onlay may be autogenous bone or preferably inert materials such as silastic. These can all be done from an intra-oral approach. (Figures 5 and 6)

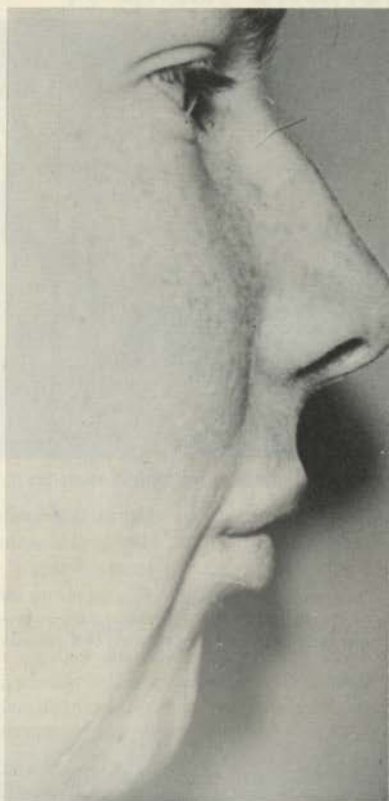


FIGURE 5



FIGURE 6

Maxillary Hypoplasia

Underdevelopment of the maxilla occurs in Crouzon's disease and in most cleft palate patients. The entire maxilla or deficient segments of it may be repositioned anteriorly. If the advancement is of great magnitude, a bone graft is required. (Figures 7 and 8)

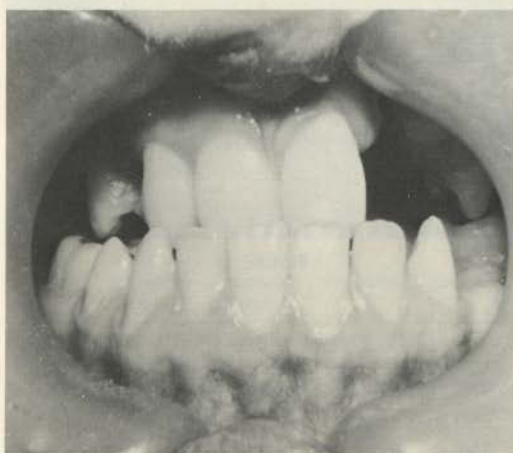


FIGURE 7



FIGURE 8

Apertognathia

This is an anterior open bite and usually associated with a marked protrusion of the maxillary teeth. Correction usually involves removal of a maxillary tooth bilaterally and a section of palatal bone with a retro-positioning of the premaxilla. (Figures 9 and 10)

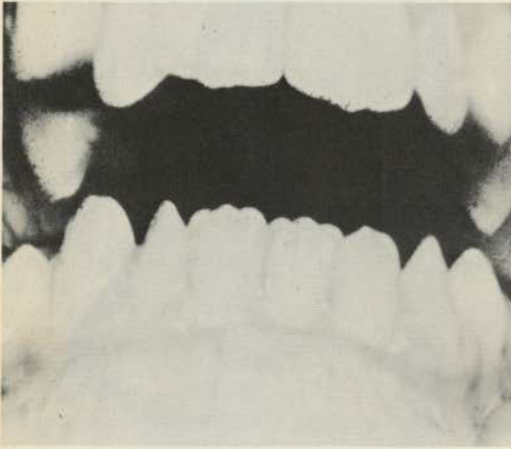


FIGURE 9



FIGURE 10

Diastema

This is excessive spacing between teeth, usually the maxillary central incisors. The condition is frequently corrected for the child by an Orthodontist. However, orthodontic measures will usually not correct the problem for the adult patient. The condition is simply corrected by removing the interposed bone and creating an osteotomy bilaterally between two other teeth and medial repositioning of the alveolar process and the teeth contained in it. (Figures 11 and 12)

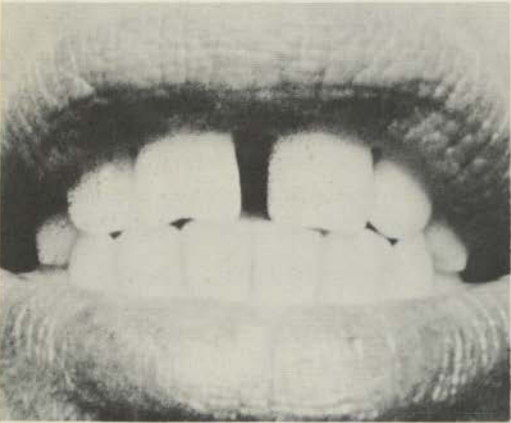


FIGURE 11

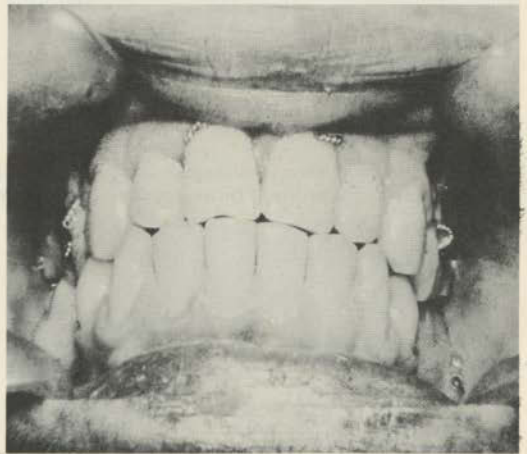


FIGURE 12

Summary

A review of a few of the defects of the facial skeleton that can be corrected by surgical repositioning of the jaws, or segments of the jaws, is presented.

These procedures are being performed routinely for patients from the Atlantic region by the Oral Surgical Staff at the Victoria General Hospital in Halifax.

The assessment that is required for each case and the results of surgery for some of the deformities is described. □

"Wheelchair Sports"

A great chance for the handicapped

Basil J. Grogono, M.D.*

Halifax, N.S.

"They are the standard bearers for every disabled person in the world" — Guttman.

There are a great number of handicapped people. In Canada alone at least five thousand spinal injury victims are assisted by the Canadian Paraplegic Association. (Table I)

Many others — amputees, sufferers from Spina Bifida, Poliomyelitis and Cerebral Palsy comprise a large population of disabled who remain adapted in different degrees to their individual condition.

Many with severe limitations, those with rheumatoid arthritis, hemiplegia and extensive neurological diseases eke out a dull existence with little opportunity to enjoy life.

I believe that suitable sports and recreation can do a tremendous lot to alleviate their burden and in a way provide a stepping stone to success in adapting themselves to society.

Furthermore, they can enlighten the Community of the fantastic physical ability and mental stamina of a Wheelchair Sportsman and give encouragement to those who are just beginning to recover from their illness or injury.

Types of Disability

There are four broad groups of disability:

- (1) "Spinal Cord injuries" and similar conditions.
- (2) Amputees.
- (3) All other physical disabilities (including Deaf and Blind).
- (4) Retarded with/without physical disability.

In general, mental and physical disabilities have such basically different problems, that they do not mix. Other

disabilities including the Deaf and Blind who need specific sports programs as do people with a wide range of neurological disturbances and deformities.

Organizations and Games

A large group of Associations and organizations have been formed to cater to this vast population of disabled for competitive and non-competitive activities. They are International, National, Provincial and local groups.

Sports Organizations

- (1) International Stoke Mandeville Committee.
- (2) Pan American Games Committee.
- (3) Canadian Wheelchair Sports Association.
- (4) United States Wheelchair Athletic Association.

Canadian Provincial Associations

Every province has its own Wheelchair Sports Association except for Prince Edward Island. Newfoundland has just formed a Wheelchair Sports Association.

Atlantic Wheelchair Sports Association

The Atlantic Wheelchair Sports Association has about forty-five members, twenty-five of whom are disabled. Formed in 1966 it has already achieved wide fame in basketball and some of its members have won international fame in South America, United Kingdom and Jamaica. (Fig. 1).

TABLE I

SPINAL CORD INJURIES
(Canadian Paraplegic Association)

| | Lyndhurst Lodge | Ontario Total | Maritimes | Quebec | Manitoba | Sask. | Alberta | B.C. | TOTAL |
|------------|--------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Population | | 7,600,000 | 2,000,000 | 6,000,000 | 1,000,000 | 1,000,000 | 1,600,000 | 2,200,000 | 21,400,000 |
| S.C.I.'s | 1,550 | 2,070 | 520 | 1,560 | 280 | 250 | 430 | 600 | 5,710 |

*Medical Director Canadian Wheelchair Sports Association. Chief of Orthopaedic Service, Halifax Infirmary.



FIGURE 1

Nova Scotia's Wheelchair Team prior to departure for Hamilton 1969.

Historical Nutshell

The Second World War provided a new kind of handicapped. In all previous wars spinal injury victims died mainly of bedsores, urinary infection and renal failure. After 1940 this didn't happen; thanks to expert care in spinal injury centres, these young men and women recovered their health, but remained paralyzed. They gained useful function of their upper limbs, developed automatic bladders and bowel control and learnt to propel themselves with great agility in wheelchairs. On both sides of the Atlantic a new phenomenon was born, the paraplegic who could live at home, go to work and become socially adjusted.

Starting with basketball, archery and racing, wheelchair sports developed into competitive organised games. Rules, classification and international groups evolved. In Britain, Sir Ludwig Guttman opened the Paraplegic Games in Stoke Mandeville in 1948 and prophesied: "These games will become an international event". They surely did. More than twenty-six Nations compete each year in Stoke Mandeville Games — at Heidelberg this year thirty are expected, including Canada.

In the United States, the "Flying Wings" from California, formed a travelling basketball team which toured the country in 1946. It was the combination of Professor Nugent, Director of Student Rehabilitation in Illinois and Ben Lipton, Director of the Bulova School of Watch making that made wheelchair sports really take off. In 1949 the National Wheelchair Sports Association was formed. In

1952 they sent their first team to England, in 1957 the First National Games were held. Since 1960 they have competed in nearly every international event and in most of those Ben Lipton has been there helping to organise, sponsor and encourage. (Fig. 2)



FIGURE 2

Wheelchair Pioneers — Ben Lipton — U.S.A., chats with Dr. Bob Jackson, President CWSA, while Bob's father looks on.

Canada's Contribution

A team from Montreal competed in early international Stoke Mandeville Games, but enthusiasm lagged. In 1966 Canada sent one athlete to Jamaica and one coach. Although he had little training and no experience, he brought back a Bronze medal and sparked the growth of our Canadian Wheelchair Sports.

In 1967, following the Pan Am Games, the Pan American Wheelchair Games were held and led to the development of the Canadian Wheelchair Sports Association. It was a small group of enthusiasts carried through difficult financial times, but they sent teams to Israel, Argentina, Jamaica and England. They fostered local and government support and ultimately expect to host the Paralympics to be held in Canada in 1976.

TABLE II

WHEELCHAIR GAMES

| National | | |
|--------------------------------------|------------------|----------|
| Canada | National | Yearly |
| United States | National | Yearly |
| United Kingdom | Stoke Mandeville | Yearly |
| Australia | National | Yearly |
| International | | |
| International Stoke Mandeville Games | | Yearly |
| Paralympics | | |
| Commonwealth Games | | 4 Yearly |
| Pan American Games | | 2 Yearly |

TABLE III

MEDICAL CLASSIFICATION

| Canada and United States | | | Stoke Mandeville and Pan American | |
|--|---------------------------------|------------------|--|--|
| 1 A ₁ | Cervical Thoracic Lumber Sacral | 1 A | - with poor triceps | |
| 1 A ₂ | | 1 B | - with good triceps | |
| I T ₁ -T ₉ (poor balance) | | II | - T1-T5 - poor balance | |
| II - T10-L3 (good balance) | | III | - T6-T10 - upper abdominals | |
| III - Below L3 | | IV | - T11-L3 - Lower abdominals (Good balance) | |
| | | V | - L4-L5 - Some Glutei (No Quadriceps) | |
| | | VI | - Below L5 - Good Quadriceps (Swimming) | |
| POINTS SYSTEM: | | Stoke Mandeville | Pan American | |
| | Hip: Flexion | 5 | 5 | |
| | Extension | 5 | 5 | |
| | Adduction | 5 | | |
| | Adduction | 5 | 5 | |
| | Knee: | 5 | 5 | |
| | Ankle: | 5 | 5 | |
| | | 5 | | |
| | | 5 | 5 | |
| | Total Points | 40 | 30 | |
| CLASS: | V | 10-39 Paras | 10-29 | |
| | VI | 40-60 Paras | 30-50 | |
| | | 40-55 Polios | 30-45 | |

| WEIGHT LIFTING: | Lightweight | under 50 Kg. | AMPUTEES: |
|-----------------|----------------|--------------|------------------------|
| | Feather weight | 50-57 | Add 1/18-BK amputation |
| | Light weight | 58-65 | 1/9 -AK |
| | Middle weight | 66-75 | 1/6 -Disarticulation |
| | Light heavy | 75-85 | Weigh - for hip. |
| | Heavy weight | over 85 Kg. | |

Non-Competitive Sports and Recreation

For the past two years the Canadian Wheelchair Sports Association has fostered their creation for those unable to become competitive athletes. An enthusiastic start has been made to form a nucleus of trained personnel to meet each year. This new aspect of the Association has to be correlated with local efforts of volunteer groups and auxiliary associations.

Classification — A Functional Appraisal

So that athletes can compete on a fair basis a system of classification has been devised according to the level of paralysis. Although this works out quite well for complete spinal injuries, incomplete lesions, asymmetrical poliomyelitis and additional associated disabilities make it difficult to equate athletes.

The Canadian and American Classification System has so far been based on three main classes — the Stoke Mandeville and Pan American Classifications on five. Amputees are eligible for the United States and Canadian Games, but not for the Stoke Mandeville Games. (Table III).

The problem is simple in most instances, but difficulties arise; a man with a very short stump on one side and a disarticulation of the opposite leg, a man with some muscles in his legs and poor abdominal muscles so that he cannot balance, a man with Poliomyelitis with one good arm, good trunk muscles and one active hip extensor. How do you equate complete and incomplete lesions — those with spinal fusion and those with such small legs that they just disappear when they are sat on.

Table III gives the basis of the two classification systems. Tests are based more on functional evaluation than on sensory level. For instance — in the quadriplegics, test the power of the triceps, in paraplegics test the abdominal muscles, the balance, the power of the gluteus maximus and the power of the quadriceps. It is possible for a team of doctors to classify athletes speedily and accurately; several hundred athletes have been classified before the games commenced in Canada and in the Pan American Games. Classification problems should be decided by a Medical team at this stage and not proceed during the Games.

The International Stoke Mandeville Committee have now standardized the procedure and ensure all athletes of a fair examination prior to the games. It is hoped that all nations competing in wheelchair sports will have a universal classification system so that any individual discrepancies can be solved.

Fitness

I feel that it is important that athletes should have a complete medical examination before they enter the National or International competition. So far we have been fortunate, but on several occasions athletes have arrived who were not fit to compete. One came straight from hospital in Montreal to Halifax for our Eastern Games and developed a high fever from urinary infection. Another who

was a United States Athlete, hid her illness from chronic renal disease until she had gained a Gold Medal and a world record, only to collapse after the event.

What Sports are Best?

Basketball undoubtedly is the best team game — skill, speed, precision, coordination and team effort are required. They make a tremendous challenge to the athlete and the game can be a very fine spectacle. In Jamaica and Argentina I have seen fantastic enthusiasm of teams and audience. On one occasion it seemed as if a revolution was about to start, the noise was so terrific. The Israeli Team who are world champions are currently touring the United States and Canada. (Fig. 3)



FIGURE 3

Basketball — Montreal 1971. Coach Dick Loiselle instructs his team.

Archery and Darchery For individual training and coordination of trunk and upper limbs, for development of balance and hypertrophy of shoulder girdle muscles you can't beat archery. All ages and all levels are eligible. (Fig. 4)

Rifle Shooting is also another sport in which great skill is being developed. A Canadian quadriplegic holds one of the worlds' best scores.

Track and Field Track Races, Discus, Javelin and Shot Put all have international status. (Fig. 5) The slalom is usually set at each contest as an obstacle course according to the level of the lesion. At Stoke Mandeville it is a set event.

Weight-lifting One of the most remarkable achievements of wheelchair athletes is the fantastically high standard they have achieved with weight-lifting. It is classified according



FIGURE 4

Archery at National Games 1971. Ben Reimer — Canada's first athlete is 4th from the left.



FIGURE 5

Track — Arm work makes up for the short legs.

to weight, with adjustments for amputees. The athlete lies horizontally and lifts the weight above his chest. Records of over 350 pounds have been made by a Jamaican athlete.

Swimming All spine injuries, except those requiring assisted respiration, can compete. Those with open wounds should be excluded, but the problems of catheters, suprapubics, ileal conduits can usually be overcome.

It is interesting to note that a private company in Ontario has recently been so successful in helping handicapped that it is forming a National Company to provide instruction for the handicapped.

In Halifax regular swimming classes are held for handicapped children and athletes swim regularly in the Centennial Pool. Our athletes have won many medals in National and International events.

Other Sports Bowling, table tennis, snooker and even fencing are all part of the International games schedule. So far winter sports in Canada have been conducted indoors and confined largely to basketball and volleyball.

Standards of Achievement

A list of record times shows that athletes perform according to their muscle power and the classification seems to work out satisfactorily, although an individual may outshine his class and the one next to it. They are remarkable athletes, equivalent to or better than the world champion sportsmen who are not handicapped.

Amateur and Professional Controversy

The philosophy is that wheelchair sports enrich life, but are not an end in themselves. Most athletes have a gainful occupation and are thus amateurs. As the standards rise, the fame of international competition brings great pressure on the stars to spend longer hours training making it difficult to follow ordinary occupations.

Non-Competitive Sports

Not all handicapped want to become international stars, though they may dream of exotic weeks in South America, or Japan. Sports should be organized at the local level and become an integral part of the Rehabilitation Program. Small groups could get together for snooker, table tennis, archery and volleyball.

A spinal cord injury victim must not be intimidated by the sight of a burly basketball player. Basketball teams can start out with small groups. In Nova Scotia, for instance, a group of volunteers (who were not disabled) compete regularly against our team. Consequently, the team is kept in practice and has reached a high standard. Games are also being played against nurses, football players and other groups. Have you tried to push a wheelchair and hold a basketball? It takes a great deal of skill!

Personnel Involved

A nucleus of enthusiasts are necessary to overcome apathy and the many problems involved in the organization of wheelchair sports.

In Canada we have been fortunate in having a group of dedicated individuals, many of whom have spent thousands of hours writing, phoning and generally pushing. Alan Simpson, himself a poliomyelitis victim, led the Canadian Wheelchair Sports Association through many adversities.

Here is a list of the main groups involved:

- (a) Organising Committee.
- (b) Trainers and Coaches.
- (c) Financial Organization, including Fund Raising.
- (d) Patrons.

- (e) Government support.
- (f) Medical Personnel and allied Rehabilitation Services.
- (g) Transport.
- (h) Publicity.

Trainers and Coaches

Special techniques go with each phase of the wheelchair sports. Dick Loiselle of Nova Scotia has led the training of many athletes. Vic Cue has been responsible for the selection and training of Canada's athletes. Without expert coaching and guidance the wheelchair athlete is lost. This is a field open to athletic departments in all universities.

Patrons, Government Support and Voluntary Effort

Goodwill and individual involvement form the basis of wheelchair sports. The Royal Family in England has consistently supported wheelchair sports and Mr. Wilson, when Prime Minister, welcomed a team of athletes who entered the front door of 10 Downing Street. In Canada the Governor General has helped most provinces to open the Games and many businesses have acted as sponsors and helped in raising funds.

Importance of National Games

It is expensive to gather teams from across Canada, but in no other way can the spirit of the games be created. Despite many problems at our National Games in Montreal last year, most athletes look forward to gaining the great experience of national competition in Calgary this year.

Finance

The budget for the Canadian Wheelchair Sports Association last year was \$71,000. Thanks to good public contribution and Federal Grants in assisting transfer of athletes to National and International Games the club remains solvent.

Great efforts will be needed to provide for the International Paralympics in 1976 when thirty nations and some thousand athletes are expected. Can this expense be justified? As a result of international competition in Japan, Israel, Britain and elsewhere, the stimulus of International Games and interest in the athletes ability did more than compensate for the cost of the games and has sparked-off many projects that would otherwise never have been created.

Tetraplegics in the Games

There is an ever-increasing number of Cervical spinal cord victims. Sports can be tailored to their needs: swimming, archery, shooting may require additional devices. They may require occasional assistance on slopes and assistance in transferring, but personally I admire the stamina of quadriplegics, they never seem to tire.

Special Medical Problems

Athletes should be self-sufficient, independent and free from active complications. Bowel and bladder control have usually been well established, but a few have special problems: suprapubics, catheters and elaborate enema routines. One quadriplegic learned how to manage his bowels on a raised toilet seat for the first time in Jamaica, a trick which saved tying up someone to give him an enema on alternate days.

Emergencies

Here are some of the problems which I have come across:

(A) *Urinary Problems* — blocked catheters, urinary infection and flare-ups, balanitis and renal disease.

(B) *Medical Problems* — Cardiovascular, exhaustion after pentathlon, paroxysmal tachycardia and hypertension.

(C) *Fractures and Sprains* — Common injuries include tenosynovitis and sore fingers. Yards of tape are required. Fractured finger occurred in one Canadian star athlete — she won a Gold Medal when the finger was bound up with a small splint.

Muscle strains can be quite severe, for instance they eliminated Bob Simpson, the fastest athlete in the Pan Am Games at Jamaica.

Major fractures are rare but elusive. A United States athlete fell out of his chair in Jamaica and continued to play. When I saw him later in his tent he was pale and shocked. His fractured femur was pretty mobile and he was taken to hospital to confirm the diagnosis. His legs were simply bound together; a Thomas Splint was not applied, owing to the great danger of developing a pressure sore.

Transport

Airlines will now accept spinal injury wheelchair athletes as individuals and as groups, if they are accompanied by sufficient supporters. Using a narrow wheelchair in the aisle of an aircraft, a team can be loaded fairly promptly. At Toronto a special bus is available to back-up to the aircraft and at other places the athlete usually descends, or ascends with the baggage. Official buses with elevators are also available and make transportation of the athlete much easier.

Physiological Effects

Sir Ludwig Guttmann has analysed the effects of the Games. Athletic training makes the body more efficient, greater stamina and skill are achieved and special development of remaining muscles, particularly shoulder girdle and latissimus dorsi give a greater sense of balance and control. Many athletes can cut down their wheelchairs so that it is difficult to realise the extent of their paralysis.

Amputees

In the Pan American Sports amputees with less than 10 points disability are not eligible, e.g. below knee amputees

on one side. Some of our best athletes have very high above knee amputations.

Also athletes with prostheses would be a great stimulus to development of improved prostheses. Athletes should wear their prostheses rather than take them off. A new pneumatic knee allows an above knee amputation amputee to walk so well that he scarcely limps. A race for this group would be a great event but medical examination of the stump before and after the race might be necessary.

Sports for All Disabilities

The International Society for Rehabilitation of the Disabled is responsible for this field which covers an even larger group. Much work needs to be done in Canada to develop this field.

Facilities — An Urgent Need

Facilities in Nova Scotia are poor. Our Atlantic Wheelchair Sports Association plays basketball in a school. Swimming is carried on in Centennial Pool at special times.

other countries: Jamaica has the Mona Rehabilitation Centre with complete sports facilities integrated with the school for handicapped. In Argentina an excellent sports stadium with all facilities is built into the Rehabilitation Hospital and is a national centre for all handicapped. In England, a national stadium has been built as a tribute to Sir Ludwig Guttman, for Guttman's organizing genius in providing every facility for the handicapped.

Much has been achieved in Canada during the past few years — facilities in the west for wheelchair sports have been organised, but we need a National Stadium for the Canadian Wheelchair Sports Association. (Table IV)

Conclusions

Wheelchair sports have come to stay; the field is rapidly developing and involves a wide spectrum of sports for the many disabled.

As Sir Ludwig Guttman remarked — "No greater contribution can be made to society by the paralyzed than to help through the medium of sports to further the friendship and understanding amongst Nations." □

TABLE IV
MEDALS WON BY CANADIAN ATHLETES

| | COMMONWEALTH | PAN AM GAMES | | | STOKE |
|----------------|--------------|--------------|------|------|------------|
| | GAMES | 1967 | 1969 | 1971 | MANDEVILLE |
| | 1966 | | | | 1971 |
| Gold | — | 28 | 29 | | 6 |
| Silver | — | 37 | 26 | | 7 |
| Bronze | 1 | 5 | 28 | | 6 |
| Total: | | | | | |
| Medals Won | 1 | 70 | 83 | 87* | 19 |
| Number on Team | 1 | * | 17 | 34 | * |

* Some figures not available at press time.

The Rehabilitation centre has no basketball, archery, shooting, or swimming pool. In Sweden, where everything seems to be available, facilities for all handicapped are available, including:

- 1) Plans for schools, hospitals and public buildings; 2) adequate space for spectators and 3) special facilities for the partially sighted. An outline of these facilities has been recently published. Excellent facilities have been built in

ACKNOWLEDGEMENTS:

Don Curran, Executive Director, Canadian Paraplegic Association.
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Dr. Ludwig Guttman, The Cord. International Journal for Paraplegics.
Miss Scrutton, The Cord. International Journal for Paraplegics.
Photographic Associates of Halifax Ltd., Figure 1.

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In their bright steel chairs
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Testing their muscles
Gainst a load of lead.

Olympic Gods
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The wheelchair contest
See the bright wheels spin
Trying so intently
Testing out each pace
Forgetting all the palsies
Midst the wheelchair race.

Olympiads
Come now admire
Our chair-borne athletes
In their finest hour
Setting an example
Rekindling a flame
Carrying a new banner
For international fame.

Brief Note

NECROTIZING ENTEROCOLITIS IN INFANCY

Necrotizing enterocolitis is a disease of premature infants with sudden onset and high mortality. Prolonged rupture of maternal membranes for more than 24 hours, a history of maternal prenatal fevers or asphyxia neonatorum increase the risk of the premature infants developing this problem. Initially, these babies progress satisfactorily but then develop abdominal distension, bilious vomiting, prolonged episodes of apnea and bloody explosive diarrhea. Without treatment, these infants rapidly deteriorate, become hypotensive and die in septic shock. Radiologically, there is edema of the gut wall, extensive areas of intramural air and occasionally air in the portal system.

The incidence of this syndrome appears to be increasing, associated with the appearance of resistant gram negative organisms in neonatal nurseries and the extensive prophylactic maternal administration of ampicillin prior to delivery.

Nine cases occurred in 5,000 consecutive deliveries during the last 2 years in the Halifax Infirmary. All infants were treated conservatively even in the face of perforation

of the gut wall. The mortality rate was extremely low with eight out of nine surviving. Three infants required surgery for local areas of bowel obstruction 3 weeks or more after the acute onset. Blood cultures grew gram negative organisms in 6 of the 9 infants. Five of the six cultures grew *Klebsiella Aerobacter* and one was *E. Coli*. These organisms were all resistant in vitro to ampicillin, chloramphenicol and kanamycin.

Aggressive medical management with naso-gastric suction, volume replacement with fresh frozen plasma or whole blood, correction of the metabolic acidosis and appropriate antibiotic therapy can produce excellent results. Surgery during the acute stage of the disease is probably not warranted since this necrotic process involves large areas of the gut wall and, therefore, resection of the involved areas is almost impossible. Early diagnosis with aggressive medical management has reduced our neonatal mortality. □

W. D. Reid,
Halifax Infirmary

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L-Dopa Therapy in Parkinson's Disease

T. J. Murray, M.D., F.R.C.P.(C),*

Halifax, N.S.

When L-DOPA (L-(1)-3-(3, 4 dihydroxyphenyl) alanine) was released for general use in 1970, the Parkinson's Clinic was established at the Victoria General Hospital to assess and follow patients treated with this drug. Prior to this time, the Neurology Service was using L-DOPA on an experimental basis only in selected severe cases of Parkinson's Disease. This paper outlines our initial experience and results.

The Basis of L-DOPA Therapy

James Parkinson described "paralysis agitans" in 1817 by noting his observation on six patients¹. It is of some interest in this age of complex research and triple blind control studies, that three of his cases were merely seen on the street, one at a distance.

Hornykiewicz² first observed there was a marked decrease in dopamine in the striatum (putamen and caudate nucleus) of patients dying with Parkinson's Disease. Early attempts to increase the dopamine content of the basal ganglia were carried out by Hornykiewicz³ and Barbeau⁴ using L-DOPA, a precursor of dopamine. Dopamine does not cross the blood brain barrier and so cannot be given directly. The initial results with L-DOPA were unimpressive but in 1967, Cotzias⁵ showed that by gradually increasing the dose to high levels most patients showed remarkable improvement in their Parkinson's Disease.

Most of the brain dopamine is present in the basal ganglia, particularly in the striatum. The cells in the substantia nigra form a fiber tract to the striatum and dopamine functions at these nerve terminals as an inhibitory neurotransmitter. In Parkinson's Disease the characteristic neuropathological change is loss of many of these substantia nigra neurons, with Lewy inclusion bodies seen in some of the degenerating cells.

The biochemical abnormality is not simply a diminished dopamine, but more an imbalance between the levels of inhibitory transmitter, dopamine, and the excitatory transmitter acetylcholine. Parkinson's Disease can thus be seen as a state of decreased dopamine and relatively increased acetylcholine. Therapy can be aimed at decreasing acetylcholine with anticholinergic drugs such as Artane and Cogentin, or by increasing dopamine with L-DOPA.

There are a number of recent publications which review the current views on Parkinson's Disease^{6,7,8,9}.

Assessment

Initially patients were treated in hospital but the experience of many groups has shown that outpatient

management is reasonable and safe¹⁰. On the first visit, the patients were interviewed and examined and the severity of Parkinsonian features graded by the Webster scale. This scale assesses ten features of Parkinson's Disease by a score of 0 to 3. An attempt was made to classify the patients as excellent, good, borderline or poor candidates for L-DOPA. Baseline investigations were done (Table I) and L-DOPA was started. Follow-up visits were at two weeks and at 1, 3, 6 and 12 month intervals, more often if indicated. On the return visit, the investigations were repeated.

TABLE I

INVESTIGATIONS

| | |
|---------------------------|----------------------|
| EEG | Glucose |
| ECG | BUN |
| Pulmonary Function | Uric Acid |
| | Cholesterol |
| Hemoglobin and hematocrit | Total protein |
| White count | Albumin |
| Sed Rate | Bilirubin |
| | Alkaline Phosphatase |
| Calcium | LDH |
| Phosphorus | SGOT |

Dosage Schedule

L-DOPA was administered in 0.5 gm. tablets and the dosage increased by one tablet every 3 or 4 days. For the patient's convenience, the week was divided into 3 and 4 days and the drug increased at these intervals. There is little evidence that using smaller increments or longer intervals reduces the side effects significantly¹¹. The dosage was increased until improvement was obvious or significant side effects occurred. Patients vary in their ability to tolerate L-DOPA. Two patients could not tolerate more than 1.5 gms. but one patient tolerated 7.5 gms. without side effects. Because we did not push patients to a maximum if they were improving well on lower doses, our average dose (2.8 gms.) is less than most authors', although our results are comparable.

Results

Because each aspect of Parkinson's Disease has the same numerical grading on the Webster scale, total scores are often misleading. Some of our poor results showed impressive lowering of their scores due to changes in minor signs, while other patients had excellent improvement with minimal change in their overall score.

* Assistant Physician, Neurology Service, Dept. of Medicine, Victoria General Hospital.

Twenty-two patients were followed out of the first 40 referred to the clinic. The remainder were not suitable candidates for L-DOPA, are too early in their therapy to be adequately assessed, or were found not to have Parkinson's Disease.

TABLE II
RESULTS OF L-DOPA
(22 cases)

| | Cases | % |
|-----------|-------|-----|
| Excellent | 9 | 40% |
| Good | 3 | 14% |
| Fair | 5 | 23% |
| Poor | 5 | 23% |

Excellent results (Table II) were seen in 9 cases (40%), good results in 3 (14%), fair results in 5 (23%), and poor results in 5 (23%). Only 2 cases were regarded as failures. In 6 patients with previous thalamotomies, 4 improved and 2 had a poor response. As noted by others^{1,2} this operation did not seem to affect the eventual results of therapy.

TABLE III
IMPROVEMENT IN SPECIFIC FEATURES
OF PARKINSONISM

| | Cases | % |
|--------------|-------|-----|
| Rigidity | 19 | 86% |
| Bradykinesia | 18 | 82% |
| Arm Swing | 18 | 82% |
| Posture | 15 | 68% |
| Tremor | 15 | 68% |
| Gait | 15 | 68% |
| Facies | 15 | 68% |
| Speech | 12 | 55% |
| Self Care | 11 | 50% |
| Seborrhea | 5 | 23% |

All the signs of Parkinson's Disease may improve on L-DOPA (Table III). These figures show what percentage of patients with each sign had improvement. The earliest sign of improvement was commonly a dramatic improvement in the patient's feeling of well being, often before we could observe any changes at all. One patient said he was "100% improved" when he was exactly the same on examination. Patients who have this early sense of well being invariably got a good result. Bradykinesia improves early and this is very encouraging to the patient and his family. Rigidity responds well but usually after bradykinesia has begun to improve. Other authors state tremor responds poorly but in our group 68% improved and in many of these the tremor completely disappeared. The

impression of poor improvement in other series may be due to limited follow-up as this symptom often continues to improve long after improvement in the other features has leveled off.

Over all, 77% of our patients improved, 14% were unchanged and 7% were made worse.

These figures do not fully reveal the significant and dramatic change in the lives of many of these patients. One 56 year old farmer had sold his land due to progressive disability over the last six years. After three months on L-DOPA, he was driving to the clinic on his own and at six months, was applying for work. A 59 year old man was moderately disabled by Parkinson's Disease and unable to speak. After three months on L-DOPA, he was driving to the clinic from New Brunswick and had a remarkable return of speech. At one year, he had only minimal slowness in hand movement and slight rigidity in one arm. A 76 year old bedridden man was unable to dress or feed himself but after L-DOPA therapy, he returned to a normal active life and at one year has little evidence of any Parkinsonian signs. Recently he travelled on his own to Ontario to visit relatives and World War I buddies.

It is axiomatic that successful therapy depends on correct diagnosis. Our cases were idiopathic Parkinson's Disease or senile Parkinsonism which is associated with more diffuse cerebral changes. The latter group is often called arteriosclerotic Parkinsonism but we avoid the term as there is little evidence that the Parkinsonism in these patients is due to specific arteriosclerotic changes. It is more likely to be due to widespread degenerative changes in the neurons of the basal ganglia and cortex. The defect is probably biochemical rather than vascular. Our results in these cases are much poorer than in idiopathic Parkinson's Disease. We have also treated other cases of secondary Parkinsonism (Table IV) with generally poor results. We have also tried L-DOPA in essential tremor and spasmodic torticollis with poor results. Two cases of hepatic coma were given L-DOPA with good improvement in the level of consciousness.

TABLE IV
RESPONSE IN VARIOUS FORMS
OF PARKINSONISM

| | Excellent | Good | Fair | Poor |
|---|-----------|------|------|------|
| Present Series | | | | |
| Idiopathic | 9 | 2 | 4 | — |
| Senile | — | 1 | 1 | 4 |
| Other Cases | | | | |
| Postencephalitic | — | — | — | 1 |
| Secondary to Anoxia and Hypoglycemia | — | — | — | 1 |
| Jakob Creutzfeldt | — | — | 1 | — |

Complications

Almost all patients had some side effects from L-DOPA, (Table V) but most were easily controlled by adjusting the dose. Only one patient had to be taken off L-DOPA as he had shown deterioration in his E.C.G.

TABLE V
COMPLICATIONS ON L-DOPA

| | Cases | % |
|--------------------|-------|-----|
| Nausea | 14 | 64% |
| Abnormal Movements | 8 | 36% |
| Mental | 7 | 32% |
| Dizziness | 3 | 14% |
| Hypotension | 2 | 7% |
| Drowsiness | 2 | 7% |
| Cardiac | 2 | 7% |

(a) Nausea:

Fourteen patients had nausea at some time in their therapy. This limited the dosage level in many but the maximum tolerated varied from 1.5 gms. to 7.5 gms. daily and the patient on 7.5 gms. did not have nausea. Because of this symptom, L-DOPA must be taken after meals and we suggest dividing the dosage according to the size of the meals including a late snack at night. A dietitian interviews the patients on each visit. We also suggest taking the L-DOPA crushed in milk or with an antacid. Antiemetic medication such as Gravol or Bonamine may be useful but in the long run, altering the dosage or meals is the most effective treatment. No patient had to stop medication due to nausea.

(b) Involuntary Movements:

Eight of our patients (36%) developed abnormal movements after being on a maintenance dosage. All were controlled within 48 hours by reducing the dose. The movements often returned at the lower dosage after weeks to months, although usually in a brief and milder form. Barbeau¹³ has described a wide range of forms, but the commonest is facial twitching or grimacing. One of our cases had this only when speaking and caused him to speak in a peculiar jerky, gasping manner with facial grimacing. It is strange that many patients do not notice the abnormality although it disturbs the family. Non-Parkinsonian patients on L-DOPA do not appear to develop this complication. Twitching, jerking or choreoathetoid movement of the limbs were present in some cases and three had involuntary plantar flexion and twitching of the toes. The most marked instance we observed was whole body twitching and writhing which did not concern the patient unduly. She was unusual in that her Parkinsonism responded well to only 1.5 gms. and at this dose, she developed this marked dyskinesia.

(c) Cardiac Complications:

One patient had deterioration in his E.C.G. and the medication was stopped even though he had no cardiac symptoms and was responding to L-DOPA at three months. Due to a slow E.E.G. and mild clinical dementia, he had been classified as a poor candidate when first assessed. One other patient complained of episodes of palpitation with no change in his E.C.G.

Twelve per cent of McDowell's series¹⁴ developed various cardiac dysrhythmias, none of which necessitated stopping the drug. Two had premature ventricular beats, one had premature ventricular beats plus endocardial ischemia on E.C.G. and one had paroxysmal atrial fibrillation and flutter. All responded to standard medical management. The remaining eight of his series had subjective palpitation with no E.C.G. abnormalities.

(d) Mental Changes:

Seven patients developed mental or emotional changes. Four had hallucinations, two delusions and one demented patient became catatonic. Three of these patients also showed depression and two periodic agitation and restlessness. One patient became very disturbed by a recurrent thought of killing his wife which continued for two weeks. It disappeared rapidly when the L-DOPA was reduced by one tablet. Another patient in a nursing home for Parkinson's Disease and mild dementia developed sexual preoccupation. He wrote letters asking for medicine to increase the length of his penis, would leave the door open when bathing and not cover himself afterwards. He wanted the matron to divorce her husband and stay with him. This cleared on reducing his L-DOPA but he later developed occasional visual and auditory hallucinations. The demented patient who developed catatonia was not significantly improved on L-DOPA and is one of the two failures in our series. Despite the fact that we consider him a failure, his wife finds him easier to manage on 1.5 gms. of L-DOPA.

Six of the seven patients who developed psychotic symptoms had evidence of cerebral atrophy before treatment. Originally we regarded dementia as a contra-indication to L-DOPA and most of our significant complications were cases with evidence of cerebral atrophy. Despite this, some of these patients are made much more manageable and may even be able to care for themselves after treatment with L-DOPA. However, the dementia is not improved by L-DOPA and may be made worse by the addition of other psychotic symptoms.¹⁴ Barbeau¹⁵ has pointed out the necessity for long term assessment of patients on L-DOPA as mental change may occur late and be subtle.

(e) Laboratory Abnormalities:

The only significant changes were of slight elevation of BUN, uric acid and alkaline phosphatase. The uric acid increased initially in almost all patients. L-DOPA metabolites in the urine caused a positive test for ketones in most

patients and one patient had dark urine that stained his clothes black. This is due to the presence of L-DOPA metabolites, particularly homogentisic acid in the urine.

(f) Other Complications:

Fractured hips may occur due to over enthusiastic resumption of physical activity. Diabetic control may be adversely affected by L-DOPA and these patients must be watched more carefully. It is not then widely recognized that the patient's improvement may cause complications in the family. Some wives have adjusted to a dominant, decision-making role and have cared for their debilitated husbands almost as if they were infants. We found that this type of wife was very disturbed when her husband improved on L-DOPA and began to resume independent activity. Two wives whose husbands improved well, wanted the medication stopped. Another continued to deny her husband's improvement and greatly exaggerated the side effects of treatment.

There was a great deal of publicity about the possible aphrodisiac effect of L-DOPA. Time magazine cited some dramatic instances of increased sexual activity including the patient who was made to sleep in the garage because of his renewed vigor. There is no evidence that there is a specific aphrodisiac effect but rather the situation seems to be a "before-you-couldn't—now-you-can" change in the patients. Also patients often develop sexually colored delusions and hallucinations which were interpreted as an aphrodisiac effect. Any non-Parkinson patient who might try L-DOPA to improve his sex life would probably find the nausea and vomiting hard to accept in a romantic situation.

Conclusion

Parkinson's Disease has three characteristic features — bradykinesia, tremor and rigidity. Anticholinergic drugs helped tremor and rigidity moderately well, but did not change the bradykinesia. Thalamotomy often helped tremor dramatically, rigidity moderately and bradykinesia not at all. Despite these measures, the disease continued to progress and the patient became more and more disabled, because it is the bradykinesia that is the disabling feature of Parkinson's Disease. With L-DOPA, we now have a medication that affects bradykinesia quickly and dramatically in most cases and it is also capable of improving all the other features of Parkinson's Disease. The question of

whether or not the disease is arrested by this medication remains open. Even if symptoms might possibly return at a later date, many patients have been given years of useful life as a result of this medication. □

ACKNOWLEDGEMENT: The author gratefully acknowledges the assistance of Dr. H. N. A. MacDonald, neurologist, Mrs. Shirley MacPherson, R.N., Mr. George Berrigan, medical student, Miss Janice Johnson, dietitian — Pulmonary function testing and interpretation was done by Dr. Arthur MacNeil, internist, and Mr. Drew Bethune, medical student.

References

1. **Parkinson, James:** "An Essay on the Shaking Palsy". Monograph 1817. Reprinted in "James Parkinson", Edited by Critchley, M.; *MacMillan and Co. Ltd. New York*. 1955.
2. **Ehringer, H. and Hornykiewicz, O.** *Klin. Wochen.* **38:** 1236, 1960.
3. **Hornykiewicz, O:** "Dopamine and Brain function", *Pharmacol. Rev.*, **18:** 925, 1966.
4. **Barbeau, A:** "Biochemistry of Parkinson's Disease". In: *Proceedings of the 7th International Congress of Neurology, Rome, Sept. 10-15, 1961.*
5. **Cotzias, G. C. et al.:** "Aromatic amino acids and modification of Parkinsonism". *N.E.J.M.* **276:** 374, 1967.
6. "Recent Advances in Parkinson's Disease". Ed. by MacDonald, F., and Markham, C. *Contemporary Neurology Series, Vol. 8. F. A. Davis Co. Phil.* 1971.
7. **Pallis, C. A.:** "Parkinsonism: Natural History and Clinical Features". *B.M.J.* **3,** 683. 1971.
8. **Lewis, P. D.:** "Parkinsonism: Neuropathology." *ibid.*
9. **Calne, D. B.:** "Parkinsonism: Physiology and Pharmacology". *ibid.*
10. **Kofman, O.:** "Treatment of Parkinson's Disease with L-Dopa", *Can. Med. Ass. J.* **104,** 483. 1971.
11. **Goodwin-Austin, R. B. et al.:** "Incidence of Side Effects from Levodopa during Introduction of Treatment." *B.M.J.* **1,** 267, 1971.
12. **Hughes, R. C. et al.:** "L-DOPA in Parkinsonism and the Influence of Previous Thalamotomy" *B.M.J.* **1,** 7, 1971.
13. **Barbeau, A.:** "L-DOPA Therapy in Parkinson's Disease" *Can. Med. Ass. Journal* **101,** 59, 1969.
14. **McDowell, F. et al.:** "Treatment of Parkinson's Syndrome with L-dihydroxyphenylalanine (Levodopa)" *Ann. Int. Med.* **72,** 29, 1970.
15. **Barbeau, A.:** "Long term side effects of Levodopa" Letter to the Editor *Lancet* Feb. 20, 1971.

Physician Self-Assessment — ANSWERS

| Question No. | Correct Answer |
|--------------|----------------|
| 239 | E |
| 318 | A |
| 403 | A |
| 472 | C |

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Some Observations on Chronic Respiratory Disease in the Children of Nova Scotia

Robert S. Grant, M.D.,*

Halifax, N.S.

Chronic bronchitis, asthmatic bronchitis, bronchial asthma, chronic obstructive airway disease, intrinsic asthma, extrinsic asthma, call it what you will, it accounts for a high morbidity in the children of this province.

Some indication of the extent of this problem may be obtained from the fact that it has been found necessary to provide more than 500 children throughout the province with inhalation equipment to use on a regular basis at home in an effort to keep them mobile. In all likelihood, a good case finding program would multiply this figure several times.

"So what? They will grow out of it, won't they?" Maybe they will and maybe they won't. This philosophy is of little comfort to the 20 year old who did not grow out of it, and it is a very weak excuse for allowing literally thousands of children to miss the normal activities of childhood and indeed to have their entire lives affected adversely by chronic childhood disease, even though they may overcome it at puberty.

The message is as follows:

1. There is a tremendous amount of chronic respiratory disease in children in Nova Scotia.
2. There is much being done for them and much more that could be done.

Consider now some of the efforts that go into caring for these children. Case finding is a good place to start. At the present time this is done primarily through physician contact, bolstered by the visiting clinics of the Canadian Rehabilitation Council for the Disabled at which clinics large numbers of these children are seen. There is room for improvement in the case finding program.

Transportation is a problem. This doesn't sound reasonable in an age when men can visit the moon, but the fact remains that it is necessary for many of these children to travel from the extremities of the province to Halifax for assessment and review and it is necessary sometimes for them to travel lesser distances but at frequent intervals to their own physicians for treatment facilities. For many families this is accomplished with ease. Many other families accomplish this only through actual privation and financial embarrassment and what is worse, many families for financial or social reasons are not able to bring their children in for assessment or treatment. There is plenty of room for help here.

Once a child has been transported to Halifax for investigation, the evaluation of the problem and the development of a comprehensive treatment program is well in hand. The facilities at the Izaak Walton Killam Hospital for Children with the integration of such services as dietary management, physiotherapy, inhalation therapy, and social service, laboratory, and x-ray services, and psychotherapy must be considered an object of envy to physicians in other parts of the world. One would be hard put to justify a request for better facilities in this area.

However, once the assessment has been completed and the job of carrying out a treatment program is underway, new problems arise.

The cost of drugs must be met. Generally this is not one of the more "expensive diseases" in relation to other chronic diseases. However, the cost of medications for an asthmatic child may come to \$50.00-\$60.00 per month, or perhaps even more. The Halifax Visiting Dispensary, the TB & RD Association and some local chapters provide some help with this problem and the Social Service Department at the Hospital finds ways and means to assist, but there are still a large number of children who do without necessary medications because they cost too much.

The provision of expensive mechanical equipment is a project in itself. Many organizations including C.R.C.D., Lions, Women's Auxiliary of the I.W.K., Rotary and Junior Red Cross have done and still undertake to provide these items for deserving children and their efforts are greatly appreciated. The job of supervising the use of this equipment, providing the necessary maintenance, keeping records of the amount of medication being used, overhauling and repairing equipment, supplying replacement for worn parts, recording rental payments has been done for years in a "buckshee" fashion by our social service department and some of our nursing staff. Fortunately, the Halifax Protestant Orphanage has taken an interest and now provides us with funds for administrative purposes.

Follow-up visits, an absolute must for the adequate care of such children, are carried out through the personal efforts of the physicians involved and complemented by the visiting clinics of C.R.C.D.

So much for what is being done! Some very desirable facilities could be developed to improve the care of these "wheezy children".

Summer camps, such as BRONCOJUNCTION in eastern U.S.A. are springing up in other areas of Canada and in the

*Associate Professor of Paediatrics, Dalhousie University. Director of Allergy Department, Izaak Walton Killam Hospital for Children.

U.S.A. It is difficult to pin-point the exact limits of the benefits derived from such camps, but most physicians and para-medical personnel involved in these activities report favorably on the improvement in general well-being evidenced by the campers.

Institutions for the temporary separation of asthmatic children from home and family serve a definite purpose. The most elaborate example of this is CARIH (Children's Asthmatic Research Institute and Hospital) in Denver, where children can live for six to twelve months during which time they receive schooling and "socialization" along with their medical therapy.

A program of home visiting by trained personnel directed at integration of the hospital and office care facilities with continuing care at home was tried recently in

association with the social service department of the hospital and the V.O.N. An elaboration and refinement of this program would be of great help in rehabilitating these "wheezy kids".

Repetition is boring but effective. The message is as follows:

1. There are literally thousands of children in Nova Scotia unable to enjoy normal childhood activities due to chronic respiratory disease.
2. Much is being done to help them.
3. Much more can be done.
4. The time is ripe for a strong, interested organization to pull the loose threads together and weave a program of care and prevention which could be a model for all of North America.

Appreciation

Charles Knowles Fuller

The sudden death of Dr. Charles Knowles Fuller occurred on May 3rd, 1972, at his home in Clyde River, Shelburne Co.

Dr. Fuller was born in Yarmouth in 1890, the son of a local medical practitioner. He received his early education in Yarmouth Academy and then went to Mount Allison where he graduated in 1912. He graduated in medicine at the University of Toronto in 1916, and thereafter practised general medicine in Yarmouth until 1924, when he left to further his studies in Otorhinolaryngology at various centers in Europe. He obtained his Fellowship in Edinburgh in 1925, and the following year his Canadian Certification in Otolaryngology and Ophthalmology.

Dr. Fuller practised his specialty in Yarmouth from 1925 until his retirement in 1970. He was chief of the Department of Ophthalmology and Otolaryngology at the Yarmouth Regional Hospital for many years.

He was active in civic affairs, serving as Councillor and Deputy Mayor for the town of Yarmouth for a number of years. He was also very active in the medical affairs of the area, particularly in the development of the present Yarmouth Hospital. He served on the Board of Trustees of the hospital for many years. In 1970 he was made an Honorary Member of the Medical Society of Nova Scotia, an honor which he valued greatly.

He was an extremely capable surgeon as was evidenced by his large practice and the esteem in which he was held by his medical confreres. His patients admired and respected his kindly services throughout the years.

He was a man of many talents, being extremely well read in all branches of the arts. In recent years, he became interested in woodworking, and produced many remarkable pieces of furniture and wood carvings.

He will be sadly missed by his patients, friends, and the medical staff of the community.

Dr. Fuller is survived by his wife, the former Ethel McKean of Pictou, a son, Dr. Stewart of Bedford, and a daughter, Lorraine, wife of Dr. Arthur Titus of Halifax. We wish to extend our deepest sympathy to his family in their bereavement.

O.D.G.

Warts and Radiotherapy

J. A. Aquino, M.D.,*

Halifax, N.S.

Warts have been known to exist for some time. Although the exact etiology is not known, the consensus is that they are caused by a virus. In the last few years, they have become more prevalent in this area. Many of the patients with this problem use the same swimming pools or play in the same gym. There is also a tendency for infection to involve more than one sibling. Different forms of therapy have been tried, such as:

1. Surgical excision.
2. Electrocautery.
3. Chemical cautery (concentrated acids).
4. Formalin soaks.
5. X-ray therapy.
6. Local vaccination.

In view of the fact that many of the patients with this affliction are children, it was felt that simpler forms of treatment, such as radiation therapy, should be tried first before resorting to the other methods. Surgical excision or electrocautery generally requires general anaesthesia. Radiation therapy has the advantage of being:

1. Simple.
2. Painless.
3. Effective.
4. Without complications.

Warts can affect hands or feet, although the latter are involved four times more frequently than the former. Other parts of the body including face and knees may be affected as well but this is a rare occurrence and is seen only in "long standing cases" where treatment has been neglected. Approximately two-thirds of the patients seen in the Department of Radiation Therapy have single warts.

X-ray treatment is effective and cures about three-quarters of the patients treated. The warts involving the hands and especially those around the nails do not respond well to treatment, including electrocautery. X-ray therapy is quite simple. Children appear to adapt to it quite well. The patients seem to enjoy their visit to the Therapeutic Radiology Department, since treatment is painless. The patients are examined and given superficial x-ray treatment to the wart. Precautions are taken so that only the wart is treated and the surrounding tissues are protected using lead cut-outs. There are no known complications resulting from this technique.

The mechanism of action of x-ray treatment for warts is not fully understood. Nevertheless, the treatment is effective and may be the result of a combination of factors including devitalization of the virus, as well as production of a local immune reaction whereby the body "rejects" the wart.

When a patient is treated with a single dose of x-ray, no noticeable changes are observed immediately. However, approximately three weeks later, the patient develops erythema and pruritus. Subsequently the wart falls off and it may be difficult to persuade the parents to bring the patients back for review. In some cases, where the wart is not completely "rejected" by the body, it can be easily resected. There exists a definite avascular plane of cleavage so that resection is almost painfree and easy.

X-ray treatment of warts produces a local effect similar to that of smallpox vaccine inoculation, but does not have the associated risk of self-inoculation which may be of some concern in smallpox vaccination.

X-ray treatment of warts is effective and painless. It is relatively simple and well tolerated by patients especially children. □

* Associate Radiotherapist, Victoria General Hospital.

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Medicine - in the Round - or in a Vacuum?

M. Doreen E. Fraser, B.A. (Alta.) B.L.S. (Tor.)*

Halifax, N.S.

As with many medical school libraries across this continent, the W. K. Kellogg Health Sciences Library's collection has been developed since 1964 according to the premise that medicine is not practiced in a vacuum and that the humanities and the social sciences do have relevancy in medical education, living and practice. Although the recently developed collection is still underutilized, there is ready access to materials in fields peripheral to the health sciences to meet sudden need, and to permit sudden discovery, unexpected confrontation, interesting sidelines, browsing and serendipity to play their part in broadening the educational experience and understanding of student and practitioner alike, all of whom work under considerable pressures of time and work loads.

It has been recognized that social sciences need to be taught in the medical context, and that there is need to use the humanities in medical practice - art, music, reading, drama and the dance have therapeutic uses. It has been recognized that judgment is impossible without an understanding of the building blocks and effort which have brought a particular subject to its present level of competence. Likewise, it is difficult to obtain a proper sense of proportion, accurate perspective and honest assessment, without knowledge of earlier contributions. In 1967 came the decision to build and maintain a working collection in the history of medicine and its specialties to meet this need and that eventually there would be an active teaching programme.

Every library needs a written acquisitions policy which will protect it from the shifts and changes of the 'immediate interest' and current stresses. There must be responsibility for retrospective aspects as well as future ones. There needs to be watchfulness to prevent lacunae and underdevelopment or neglect of relevant subject interests. The Kellogg Library has been struggling to write its policy for some months.

Dean Stewart's report in 1971 to the Dalhousie University Senate for 1966-1970, points out startling growth:

1. Complete revision of the medical education programme which aims to develop the habit of self-education which will carry on after completing formal education. No longer do students take exactly the same courses and electives may be selected in any subject relevant to medicine.

2. Transfer in 1970 to the University of responsibility for residency training.

3. The Family Practice Unit, organized in 1970, which is concerned that graduates function effectively in the community.

4. The extension of the Continuing Medical Education Programme, and increasing involvement with the health sciences.

5. The unofficial but large contribution which medicine makes to research, professional, governmental and public organizations at various levels.

Where does the Kellogg Library fit into this picture? How do these elements affect the selection policy and services? Through these years, the collection and its services were completely transformed and rehoused, but so much concentrated attention and energy has rightly gone into the revision of the medical education programme during this period, that neither Faculty nor students have had time to learn how to use their new library fully.

Meanwhile, many changes have come about. From being a 'closed' library in 1964, consultation of its collection was extended in December, 1971 to include any person having a reasonable need. Borrowing privileges have been extended to professional people active in the health sciences, and on 1st July 1972, a Librarian will be appointed to the Division of Continuing Medical Education to plan for the development of an expanded regional library service for the health sciences throughout Nova Scotia, New Brunswick and Prince Edward Island.

Periodic reviews of library collections are necessary and valuable but when such take place there can be sharp differences of opinion.

In the past six years, there have been two faculty revisions of the journal subscription list, but not of the book selection policy. In working with the present acquisitions policy, differences of opinion have been forming as changes of library staff and faculty occur. Just at the point in time when it has become possible to assist patrons to develop a knowledge and understanding of the uses to which their new collection can be put, there are viewpoints being expressed which would reverse the policy of the last eight years - opinions have been expressed that the collection should be limited to 'clinical medicine' and basic medical science materials, that history is of little moment, and that the need for a wide range of journals is questionable.

In the course of writing a policy statement for approval, the following points must be considered:

1. Concern to maintain a recognized standard of excellence for the library.

*Health Sciences Librarian, W. K. Kellogg Health Sciences Library, Dalhousie University.

2. Decision whether the journal collection should contain primary and secondary titles in the major languages in all medical subject fields as at present. Decision about geographic and national representation on a selective global scale as at present for reading and reference purposes.

3. The extent of inclusiveness, exclusiveness and duplication. The cost of materials, processing and housing must be weighed against the considerable costs introduced by eliminating duplication and limiting the collection - the costs resulting from increased expenditure of time and energy, increased frustration and inconvenience, the dropped intention, the interrupted work flow, the elimination of the wider horizon and link with other concerns - all in the context of pressure and time.

4. *Scope of Coverage*

- a) The means of ready access to the existing literature must be provided through indexes and abstracts, etc. Regardless of the selection which includes or excludes the humanities, the social sciences and other pertinent fields of interest, the collection will always remain a limited one.
- b) Provision of 'starting points' by means of minimal collections in peripheral fields which impinge upon medicine and its concerns.
- c) Geographic and language limitations.

- d) Geographic and subject coverage of documents and reports published by organizations (governmental and non-governmental, hospitals, etc.).
- e) Importance of retrospective strength in various facets of the collection to satisfy need when the present programme matures.
- f) History of medicine collection - type and scale.
- g) Archives material - local, provincial.
- h) Audio-visual and microform materials.
- i) Illustrative material and pamphlets.

Whatever present differences of opinion exist, the final out come will be determined largely by the degrees of involvement contributed by Faculty members when the acquisitions policy is in the process of being approved.

SUICIDE SURVEY

Would the doctors in the Metro area kindly complete the sheets that were sent to them regarding suicides and suicide attempts and send the completed forms to:

Dr. Sol Hirsch at The Victoria General Hospital.

Brief Note

DIABETES DAY-CARE CENTRE

Outpatient Department — Victoria General Hospital

The patient with diabetes mellitus has many urgent questions and it is appreciated that during a routine office visit, the physician cannot devote a great deal of time in answering them. For this reason a referral center was established in the Halifax area in 1964; it provides individual assessment of patients and information about management of the disorder.

The Centre is staffed by a registered nurse and dietitian experienced in management and health education of the diabetic. Patients referred by their doctors attend the Centre for two days and continue under the care of their physicians, who can arrange any necessary further visits.

The first day at the center is devoted mainly to general group discussion of the nature and management of diabetes and to resolving the individual's concerns and misconceptions regarding effects of the disorder. (Individual counselling is available, but group discussion with other patients has been found most helpful.) The second day patients are counselled about diet; information given the previous day is reviewed in relation to the role of diet in the management of diabetes. The diets are individually planned to be compatible with eating habits, work pattern, and family situation.

The Centre has facilities for determination of serum glucose levels. When these tests are carried out at the Centre, breakfast and dinner are provided according to prescribed diets. Test results are telephoned to the referring doctor and a report is mailed which summarizes the patient's visit to the Centre.

The Diabetes Day-care Centre is an insured health service for all residents of Nova Scotia. Doctors wishing to refer patients should call the Centre (Monday through Friday, 8:30 a.m. to 4:30 p.m.; 429-7573).

The Victorian Order of Nurses

A. G. Cameron, M.D.,

Halifax, N.S.

What is the Victorian Order of Nurses?

What can it do for your patients?

The Victorian Order of Nurses is a voluntary, national visiting organization whose primary function is the provision of a 24 hour nursing service to individuals, families, or groups in the community.

The V.O.N. works closely with the medical profession. Each branch has its own medical advisory committee and the national organization has a medical consultant to advise on the medical aspects of nursing care. New nursing procedures are cleared by the Medical Advisory Board.

Although calls for nursing service will be accepted from any source, treatment and further care is provided only if there is a doctor in attendance.

Among the services provided by the V.O.N. nurse are the following:

1. Routine nursing care such as bed or tub baths, enemas, pedicures.
2. Rehabilitation procedures including assistance with activities of daily living, crutch walking, active and passive exercises.
3. Injections — subcutaneous, intra muscular and intravenous, including withdrawal of blood for diagnostic purposes.
4. Dressings — sterile or aseptic, post operative, burns, varicosities, cancer.
5. Irrigations — colostomy, wound, bladder and supra pubic.
6. Catheterizations, including male catheterization.
7. Insertion or changing of tubes — tracheostomy, laryngectomy, nasogastric or abdominal gastric.
8. Blood pressures.
9. Removal of sutures and clips.
10. Nursing assessments of individuals, and formulation of nursing care plans.
11. Demonstration and teaching the use of special equipment such as suction and inhalation machines.
12. Postural drainage.
13. Immunization procedures when requested, in special circumstances.
14. Assistance at surgical procedures in the home, and with home confinements, although this latter is extremely rare.

15. Emergency procedures such as artificial respiration and external cardiac massage.

In addition, the following procedures may be sanctioned, provided the nurse has received adequate instruction and has proven competence:

1. Listening to chests, including apical heart beats.
2. Use of an ostoscope.
3. Peritoneal dialysis.
4. Other procedures approved by the Medical Advisory committee and deemed safe practice for nurses to perform in the home.

The V.O.N. is financed through patient fees, grants, private donations and United Appeal where available.

The charge for V.O.N. service, is based on the cost per visit of the individual branches. This fee may be reduced or waived entirely, depending upon the patient's financial situation and the number of visits required.

There are several instances of third party payments, which include some health insurance plans, D.V.A., W.C.B., and payment under the terms of the Canada Assistance Plan to patients in receipt of welfare, provincial assistance, old age assistance, or low incomes.

In addition to the provision of nursing care, other programs have been developed in Nova Scotia by the V.O.N. which are designed to enhance the quality of health service to our citizens. These include:

1. Hospital referral programs, which have as their primary function, the continuity of patient care from the hospital to the community.
2. Counselling services to senior citizens in senior citizen clubs and housing complexes.
3. Paramedical examinations to insurance applicants, including physical assessment and referral to a physician if a health problem is found.
4. Occupational nursing on a part time basis to small industries, involving pre-employment health assessments, counselling and follow up.

There are 12 branches in Nova Scotia, employing over 40 nurses, all of whom are registered nurses, the majority of whom have additional preparation in public health. Nursing care by the V.O.N. is available to nearly 70% of the population. If there is a V.O.N. branch in your area, their service is available to your patients. The nurse is only a phone call away. □

Physician Self-Assessment

Lea C. Steeves, M.D.,

Halifax, N.S.

With this issue, the **Bulletin** introduces a new service for its readers. The Division of Continuing Medical Education, Dalhousie University, on behalf of The Medical Society of Nova Scotia has sought permission from a number of major specialty societies to introduce members of The Medical Society of Nova Scotia to the techniques of physician self-assessment. This is being done through the presentation in each issue of the **Bulletin** of a few questions selected from a self-assessment programme. The same issue of the **Bulletin** contains the correct answer. Try each question; check your answer.

It is our hope that stimulated by these small samplings of self-assessment presented monthly you will wish to purchase a full programme. An inquiry to the specialty society concerned and purchase of their programme will make possible for you a most valuable experience — a complete physician self-assessment.

The following questions are reprinted from the American College of Physicians **Medical Knowledge Self-Assessment Program*** with the permission of Dr. E. Rosenow, Executive Vice-President, A.C.P.

DIRECTIONS: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the **one** that is **BEST** in each case.

239. Forty-eight hours after an abdominal operation, an obese 50-year-old man develops fever, tachycardia, respiratory distress, and non-productive cough.

Which of the following is the most probable cause?

- (A) Pneumonia
- (B) Pulmonary infarct
- (C) Myocardial infarct
- (D) Pneumothorax
- (E) Atelectasis

318. A young Negro patient, with a negative skin test to mumps antigen and a childhood history of mumps, has parotid swelling and a dry cough.

This condition is most likely to be due to

- (A) sarcoid
- (B) Wegner's granulomatosis
- (C) multiple myeloma
- (D) iodine sensitivity
- (E) extrapulmonary tuberculosis

403. For the past eight months, a 45-year-old man has had upper abdominal distress accompanied by nausea and a weight loss of 25 pounds. Roentgenograms show a slightly dilated stomach, with irregularity of the antrum and deformity and narrowing of the duodenal bulb. Repeated aspirations of the stomach in the evening yield from 300 to 500 cc of gastric content.

Anticholinergic drugs are contraindicated in this patient because

- (A) the cholinergic blockade will decrease gastric motility and intensify the gastric retention
- (B) the lowered acid secretion will interfere with digestion
- (C) of excessive inhibition of pancreatic secretion
- (D) of interference with the absorption of vitamins from the upper gastrointestinal tract
- (E) of the local anesthetic effect upon the antrum, interfering with the production of gastrin

472. In following the progression of the early stages of a chronic renal disease producing contraction of the kidney and reduction of the nephron population, the best index of failing function is

- (A) blood urea nitrogen concentration
- (B) serum creatinine concentration
- (C) creatinine clearance
- (D) phenolsulfonphthalein (PSP) test
- (E) urinary specific gravity or osmolality

□

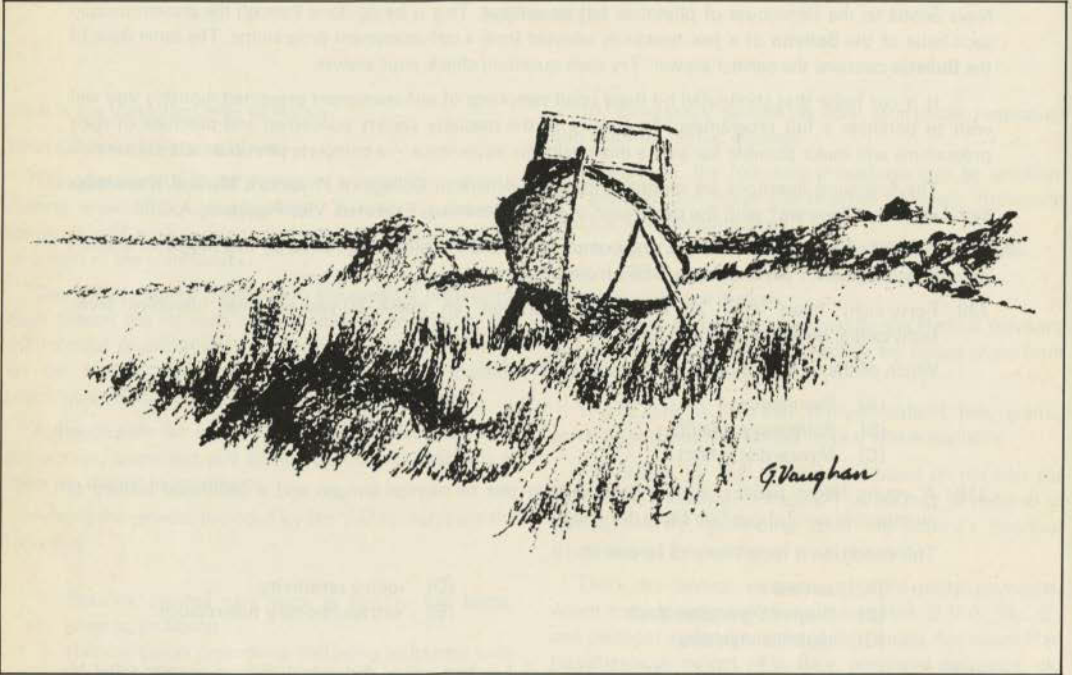
*The complete Self-Assessment Test is still available and may be purchased upon application to the American College of Physicians.

(please turn to page 70 for answers)

Painting as a Hobby

Garth Vaughan, M.D.,

Windsor, N.S.



"Cape Islander Ashore"
Black marking pen sketch

Sketching and painting have always fascinated me but including them in my life as a doctor posed the problem of how to find the time. As the practise grew and my life became busier, the opportunities to enjoy art became fewer. However, my interest was akin to an obsession and eventually, the realization that art was **needed** for the good of my soul forced me to find the time.

After surveying the situation closely, I realized that the time was actually there; the method was the thing that required development! I now enjoy both sketching and painting and, if you would like to paint, perhaps the method I developed will help you to include art in your life.

I had been saddled with the mistaken idea that the only way to learn how to paint was to take lessons from somebody who knew how. No self-respecting art teacher was ever going to give lessons during the late night hours available to me. "There must be books," I said to myself, "that would teach me just what I want to know." There are in medicine and there must be in art. I sought after and

found, to my great and continuing pleasure, a magazine called "The American Artist". This was the most important step in developing the method. If I do nothing more than introduce you to this magazine, that alone may be your starting point. This magazine is a highlight of my life. It features articles, illustrated in color, by America's best artists, and covers painting of landscapes, seascapes and other popular subjects. I found books on my favorite areas of art advertised in "The American Artist" and have accumulated a fairly good library of books which one rarely sees in even the bigger book stores; believe me, I've searched all over including Foyles of London and this is no exaggeration. Let me emphasize that "The American Artist" is a great source of information and inspiration and can open the door to amateur art for you. It costs \$10.00 per year, or \$21.00 for three years and the address is:

The American Artist
2160 Patterson Street
Cincinnati, Ohio 45214

Whenever a little time was available to spend on art, I seemed to waste it getting ready or finding my materials. This was discouraging. The problem was overcome when I found a place in the house where I could leave things "set up" so that I could get right into it at a moment's notice. Fortune was with me in this regard for my family voted me the smallest room in the house, and it's all mine. It contains nothing but my "art stuff" and it's there, as I put it, for my use, whenever it's needed. That is important! There is a dentist in New York who paints in his basement in an area 8 feet by 10 feet which he walled off with chicken wire and a padlocked door to keep his children from smearing paint over the drapes, etc.! If you really want to paint, you must find your place.



"Trees at Martock"

24" X 30" oil painting. Painted with palette knife on the spot using car trunk as easel.



"Head of the Cove"

22" X 30" oil painting. Painted in the studio from photo taken at Boutilliers Cove, near Halifax, N.S.

Some weeks there is no time for art. One half hour after lunch or dinner a couple of times a week is often all that is available. However, the best time is usually late in the evening, when everyone has been seen and everything is done. Not often, but once in a while I paint until one or two in the morning, that is, if I'm really anxious and I feel certain that it is not going to interfere with the next day's work. This is not ideal but it fills a great need in my life. Sometimes I get a part of a Saturday or a Sunday but that is icing on the cake.

Another way of capturing available moments for art is to keep a sketchbook and nylon-tip pens and soft lead pencils in a briefcase in the car. Five minutes added to the time of a house call in the country now and then to sketch a barn, farm house or country road can sometimes be arranged! (Be sure to deduct that time from your "Detention Fee" No. 0100). These sketches are fun in themselves and often provide a subject for an oil or watercolor painting. Looking for things to sketch while driving along makes one become a student of nature. That is fun in itself and there's no place better to do this than in Nova Scotia.

Reproductions of paintings and illustrations from magazines of all types can provide much inspiration. These can be gathered constantly and stuck in scrap books. I now have several of these and refer to them frequently to find out how some artist has handled a problem of technique which I am facing in my current painting.

Recently I acquired a Pentax Spotmatic camera with a Zoom lens which provides me with a wealth of material for painting. It is simple to operate, fun to use and has created a second hobby for me — photographing nature. On an overnight trip to Cape Sable Island last June, I captured one hundred snapshots of fishing village "material" from which I have already painted and sold a number of pictures.

Painting outdoors (the trunk of a car is a wonderful easel) is the greatest art thrill I've experienced but there is seldom time for it. Bringing the scene back to the studio with the help of a good camera is second best.

The finished painting can be the source of great enjoyment, amusement or feeling of achievement, but the greatest pleasure of all comes from the actual creation of it. The study of nature, its colors, forms and moods and learning to capture them, plus the good air you breathe while doing it, can provide one of the great experiences of your life! □



THE HOUSE CALL

Glace Bay, February 18, 3:20 a.m. It was a typical stormy, Cape Breton winter night. The phone rang shrilly, tearing me from the blissful arms of Morpheus. "Come right away. Me wife's got awful pains in the stomach." The voice gave me an address in "the Hub", a section of row houses in Glace Bay. I rose at once, dressed, and shovelled a path for my Dodge. The highway was thick with snow. I had to stop the car about 100 yards from my destination. The good man had opened his front door and the welcome light came streaming through. It was a heart-warming glow on a bitter night. As I trudged through the two feet of snow I could hear his voice faintly calling through the cold morning air. The wind was blowing so fiercely that at that distance I could not make out the words. He kept calling out to me while waving his right hand. It sounded and looked so encouraging. Eventually I was there and could hear the words that had been struggling their way through the cold night air. "You can go home, bye. She shat!"

That was twenty years ago and I was enjoying my first year of practice under a prepaid medical care system. The Dominion Coal Company in those far off but never to be forgotten days, had a check-off system for its employees. Every miner paid one dollar per week to a doctor of his choice and in return received full medical, surgical, obstetrical care and drugs. Also taken from his pay was another dollar to be paid to the hospital of his choice.

The doctors work was endless as the demand for "a house call" was beyond belief. The call that I have described was typical in that the stimulus required was no more than a wife full of feces. There were calls for people with toothache and, actually, at 1 a.m. to find that the parents wanted an opinion as to whether or not their baby needed circumcision.

This was "abuse" in its finest hour but never abuse by the doctor. It was patient abuse just as it largely is today. Of course, there are a few doctors who could probably be found guilty of abuse. Generally, however, it is the demanding patient who is ruining a basically sound concept of medical care financing.

It is now up to the Medical Profession to do what the doctors in Glace Bay were never able to do. I am talking

about the eradication of the unnecessary house call. Let us each look at our list of house calls in any week; how many of these people could have come or have been brought to the office?

Not only as doctors but as tax-paying citizens of Nova Scotia, it is our duty to protect M.S.I. Pre-paid medical care has lifted a real burden from a large section of our population. M.S.I. can only continue to function if it is not destroyed by over-use.

Every one of us in general practice has patients who come to the office more often than is medically necessary. These people can be educated to some degree. It is, however, with the house call, that the doctor has the most control. If he finds that a family is demanding too much, he can so inform them and further, he can request M.M.C. to write a letter notifying the patient that their house call demands are excessive.

It has been my experience that, even with a large practice, few house calls need be made. Most people will come to the office or to an emergency centre if necessary. There is no question either, that a more satisfactory examination can be made in the office than in the house.

The hours spent making needless house calls can be better spent seeing more patients in the office, in study, or even in resting.

Let us continue to make every house call that is essential but not one that isn't.

M.E.B.



Correspondence

To the Editor:

Comments in "Around the Willow Tree . . ." (April 1972) concerning the Medical Society's public duty to express a professional opinion on the matter of direct services by denturists to patients deserve a reply.

Your correspondent might be interested to know that, in fact, the Medical Society did make its position known to all the members of the Provincial Legislature in a letter over my signature as Society President as follows:

"On behalf of the Medical Society of Nova Scotia I wish to make the following observations concerning the question of legalization of denturists:

1. The Medical Society does not object in principle to evolution of professionals in the health field providing there is a demonstrated need and a fully acceptable training program.

2. The Medical Society believes that new groups introduced in the health field must come under the direct supervision of existing licensed professional groups who have gained recognition through their professional training, experience and reputation.

3. The Medical Society believes that short term solutions to long term problems, as may be the case in this instance, may in fact be lowering the standard of service to the public.

"Medical evidence will be presented to you by the dental profession which is highly qualified in the field of oral pathology. I wish to point out the necessity of ensuring

that the evolution of service in the health field must be considered from more than one point of view.

"We are in a time when the public expresses its opinions strongly to their legislators. This is being done with increasing sophistication. Unfortunately, there are occasions when the public is not in a position to evaluate fully the ramifications of its actions. It appears that a paramount consideration is the economic consideration. While we agree that the economic question is of importance to all of us, we must realize that in the field of health delivery decisions based on economics alone can become very costly to the beneficiary of the service.

"The Medical Society believes that a comprehensive educational program must be initiated before the introduction of new persons to the health field. This well may be an expensive consideration for Government. It may be more efficient if this cost were utilized to expand the educational and training facilities and capabilities of existing members of the dental team. If this is the case, and this should be weighed very carefully, there is no reason for the introduction of this new person in the dental field.

"In summary, the Medical Society doubts the value of the proposed legislation because the need could be more appropriately met by expanding the training of existing personnel in the dental team".

In brief, then, we did volunteer our opinion, if not the answer. □

Sincerely,

G. W. Turner, M.D.
President

HEALTHIER DOCTORS

Between 1951 and 1971 more than half the British doctors who formerly smoked cigarettes have stopped. **Lord Rosenheim**, a physician and president of the Royal College of Physicians, London, told the World Health Organization that of all the occupation groups studied in Britain only doctors are showing a declining rate of lung cancer. This has saved the lives of about 80 physicians a year, which represents the total yearly output of one medical college. The same drop in lung cancer among doctors is becoming evident in Canada and the United States thanks to a similar decline in smoking.

Reprinted with permission from the March 1972 issue of *Chatelaine*.
Are you contributing to the physician shortage? Ed.

Doctor to obese patient: "I've done all I can to get your weight down, Mr. Murphy — I suggest that you just learn to be jolly."

— from Health Rays

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Watching players at ball park, little boy to father: "When do they start shaving and smoking cigarettes and all that?"

— from Health Rays

Medical Society Insurance and Investment Services

Reports have it that physicians in Nova Scotia are being subjected to unusually heavy sales pressure from Life Insurance Companies and Investment dealers. This situation no doubt stems from the fact that the Society is in the process of changing over to new group insurance policies and second, because the amount of the Income Tax exemption for Registered Retirement Savings Plans has been substantially increased for 1972.

It is suggested that physicians look closely at what the Society is sponsoring in the way of Insurance and Investment. Those who are planning retention or purchase of insurance from other companies are well advised to consult the Society prior to making any commitment.

Insurance: The Society is offering new group policies in the following categories:

- (1) Group Life
- (2) Accidental Death and Dismemberment
- (3) Income Replacement (long term disability)
- (4) Business Expense

All physicians in the Province are being contacted by agents of Murray G. Bulger and Associates, representing the interests of the Medical Society.

Investment: The investment services provided by the Society are in support of CMA plans. These savings and investment plans are as follows:

(1) C.M.A.R.S.P. — A Registered Retirement Savings Plan qualified for the current level of income tax deduction. Money paid into this Plan may be allocated to either the Investment Fund or the Insured Annuity.

(2) Alta Vista Fund — A blue chip type of investment fund.

(3) Lancet Performance Fund — Speculative

The performance of these funds is published in the index section of the C.M.A. Journal.

For further information contact Mr. A. A. Schellinck, Manager, Economics and Membership Services Department at the Society office or phone 423-8166. □

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ANNUAL SUMMER MEETING

The Medical Society of Nova Scotia will be holding its Annual Summer Meeting at Keltic Lodge, Cape Breton on September 7, 8 and 9 which is the Thursday, Friday and Saturday following Labour Day Monday.

PRELIMINARY PROGRAM

Thursday evening
Guest check-in
Reception

Friday morning
Executive meets
Friday all day
Golf Tournament
Friday evening
Lobster Festival

Saturday morning
Executive meets
Saturday all day
Golf Tournament
Saturday evening
Dance or Social
Golf Prizes

NEW MEMBERS

The Physicians listed below have joined The Medical Society of Nova Scotia between January 1, 1972 and April 30, 1972. A most cordial welcome is extended from the Society.

Dr. C. I. Cohen
Dr. J. P. Curry
Dr. M. J. David
Dr. L. A. Davis
Dr. K. Gandhi
Dr. J. O. Hunter

Halifax, N.S.
Halifax, N.S.
North Sydney, N.S.
Sydney Mines, N.S.
Bridgewater, N.S.
Yarmouth, N.S.

Dr. K. Marfatia
Dr. E. D. MacArthur
Dr. S. A. Qureshi
Dr. L. R. G. Rustige
Dr. C. N. Williams

Bridgewater, N.S.
Berwick, N.S.
Inverness, N.S.
Bridgewater, N.S.
Halifax, N.S.



Personal Interest Notes

The National Cancer Institute of Canada has awarded \$36,750. in grants to the Province for research and also for financial support to young scientists. Most funds will come from the campaign of the Canadian Cancer Society, which is affiliated with the institute. Dalhousie University will receive a total of \$34,000. in grants. Among grant recipients are **Dr. S. G. Lannon** and **Dr. M. Gorelick** \$4,700. for research in hormone effects on prostate cancer; and **Dr. S. McFarlane** and **Dr. C. vanRooyen**, \$20,000. for biochemical and virological investigations.

Dr. Richard J. Pickering has been appointed Director of the Infectious Disease Research Laboratories at the Izaak Walton Hospital for Children in Halifax effective in September. He has been awarded an \$80,646. Canada Council Research Grant which will contribute to the development of research at a new centre in the hospital, investigating children's communicable diseases. Dr. Pickering is a native of Medicine Hat, Alberta and is presently Associate Professor of Paediatrics at Albany Medical College and Research Physician with the kidney disease institute of the New York State Department of Health.

Dr. C. Barber Mueller of MacMaster University, Hamilton, was elected President of the Eastern Division Canadian Association of Clinical Surgeons, at its annual meeting in Halifax. **Dr. Gordon W. Bethune**, Halifax, the out-going president said it was the first time since the organization was formed in 1909 that the annual meeting was held in Halifax.

Major M. (Mike) Bergin, Cornwallis, N.S., has been posted to CFB Europe effective July 15th. He will assume the duties of base psychiatrist at Lahr, Germany.

Dr. J. P. Welch, Associate Professor of Paediatrics at the Dalhousie Medical School, has recently begun a program in the Cytogenetics Laboratory utilizing a recently discovered method for the diagnosis of genetic abnormalities in unborn children.

Dr. John R. McCleave, who is general surgeon at Digby General Hospital, was chosen Citizen of the Year in Digby, N.S. for his "long-time service to the community as a leader in educational, recreational and civic affairs."

Dr. F. Ralph Townsend has been named administrator of mental health services for Nova Scotia, to develop and coordinate mental-health services throughout the Province, in public and psychiatric hospitals.

Dr. Helen M. Holden, Medical Director of The Nova Scotia Sanatorium was presented with her 25-year service award recently. The ceremony took place at Government House, Halifax, and the presentation was made by The Honourable Victor DeB. Oland, Lieutenant Governor of Nova Scotia.

Dr. S. Clair MacLeod, Assistant Professor of Obstetrics and Gynaecology at Dalhousie, was installed as a Fellow of the American College of Obstetricians and Gynecologists at its 1971 annual meeting, in San Francisco.

Dr. W. D. Stevenson, professor of Neurosurgery V. G. Hospital, has just returned from Natal, Brazil where he served for 2 months with the hospital ship S.S.H.O.P.E. During this time he worked both in the D.A.S. Clinicas hospital which is the University Hospital of the State of Rio Grande de Norte as well as doing elective neurosurgical work on the hospital ship itself. He is pleased to say that he was accorded an extremely warm reception by the local neurologists and neurosurgeon both from a professional and a social standpoint. Teaching Clinics were held, lectures and small group teachings with the undergraduate students, seminars and conferences with the attending staff and an unusually large number of major neurosurgical procedures were carried out. The contribution of Dalhousie University in making a gift of some 150 teaching slides to their department was greatly appreciated. It was felt that a worthwhile start had been made in the Education program of the ship in attempting to upgrade the standards of both neurosurgical teaching as well as clinical practice.

A Neuro-Surgery Department will be opened at The Moncton Hospital, N.B. on July 1st. The new department, only the second in the province, will be under the direction of **Dr. H. H. Tucker** of Halifax.

At Acadia University's spring convocation, **Dr. Paul Kinsman** of Wolfville received his B.A. degree, majoring in political science. An undergraduate degree was not required when he took pre-med courses at Acadia prior to entering Dalhousie Medical School. Our congratulations to Dr. Kinsman.

The Annual Meeting of the Valley Medical Society was held in MacKeen Room at Acadia University on the 10th of May, 1972. Dr. Don Morris of Windsor was elected as the new President. An impressive banquet followed the meeting and the evening ended with Dr. Harold Roby's band playing some of the lively tunes of the day. Presentation of merit awards were made to Dr. G. K. Smith of Hantsport for being in practice for 50 years, to Dr. Percy McGrath of Kentville who has contributed his specialist skill in Otolaryngology for 55 years. The Valley branch also honoured their member Dr. Garnet Turner who is now the President of The Medical Society of Nova Scotia.

New arrivals in the Valley include Dr. O. P. Chhabra, Canning, Dr. J. Wallis, Greenwood and Dr. Robb in Berwick. Dr. Peter Watts now in Halifax will be joining the staff of the Blanchard Fraser Memorial Hospital in July. Dr. Watts is an Obstetrician and Gynaecologist.

OBITUARY

Dr. Charles Thomas Knowles Fuller, 81, of Yarmouth died May 3, 1972. He held degrees from the Universities of Mount Allison, Toronto and Edinburgh. He also studied in Vienna and New York. He practiced medicine for over 50 years in Yarmouth. Our sympathy is extended to his wife and family. An appreciation is published on page 72. □

The Medical Society of Nova Scotia
 ANNUAL SUMMER MEETING
 KELTIC LODGE
 September 7, 8, and 9; 1972

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72ND ANNUAL MEETING CANADIAN TUBERCULOSIS AND RESPIRATORY DISEASE ASSOCIATION and 14th ANNUAL MEETING CANADIAN THORACIC SOCIETY

For the first time since 1959, the Canadian TB & RD Association will hold its national convention in Halifax at the Hotel Nova Scotian June 25th to June 28th inclusive.

Of particular interest to physicians will be the programme being developed by the Canadian Thoracic Society.

This is an invitation to all physicians to attend the sessions.

Hosting the annual convention will be the Nova Scotia TB & RD Association.

PROGRAMME

CANADIAN THORACIC SOCIETY

Monday June 26th – Wednesday, June 28th

The Following Themes will be Discussed –

1. The Delivery of Health Care –
2. Solid Lung Syndrome – Dr. Bryan Kirk, Director Intensive Care Unit, Winnipeg General Hospital
3. Lung Transplantation and Rejection – immunological aspects
4. Original Investigative Work
5. Clinical Care

Guest Speaker –

Professor Lynne Reid,
 Institute of Diseases of the Chest
 Brompton Hospital, London, England

Meet the Experts Sessions

The rest of the programme will be made up from selected papers on new work in respiratory disease.

Tuesday, June 27th

11 a.m. Annual Meeting – Thoracic Society