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The BULLETIN

of the

VANCOUVER MEDICAL ASSOCIATION

Vol. XVIII. APRIL, 1942 No. 7

With Which Is Incorporated
Transactions of the

Victoria Medical Society

the

Vancouver General Hospital

and

St. Paul's Hospital

In This Issue:

	Page
NEWS AND NOTES	197
STENOSIS OF THE COMMON BILE DUCT	209
ARTERIOVENOUS ANEURYSMS	212
BRONCHOSCOPY	214
RELATIONSHIP BETWEEN HYDATIDIFORM MOLE AND CHORIONEPITHELIOMA	217
SUDDEN DEATH	220

C.M.A. AND B.C.M.A. ANNUAL MEETING
JASPER — JUNE 15-19, 1942

E. B. Shuttleworth Announces . . .

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BULLETIN

Published Monthly under the Auspices of the Vancouver Medical Association in the interests of the Medical Profession.

Offices: 203 Medical- Dental Building, Georgia Street, Vancouver, B. C.

EDITORIAL BOARD:

DR. J. H. MACDERMOT

DR. G. A. DAVIDSON DR. D. E. H. CLEVELAND

All communications to be addressed to the Editor at the above address.

VOL. XVIII. APRIL, 1942 No. 7

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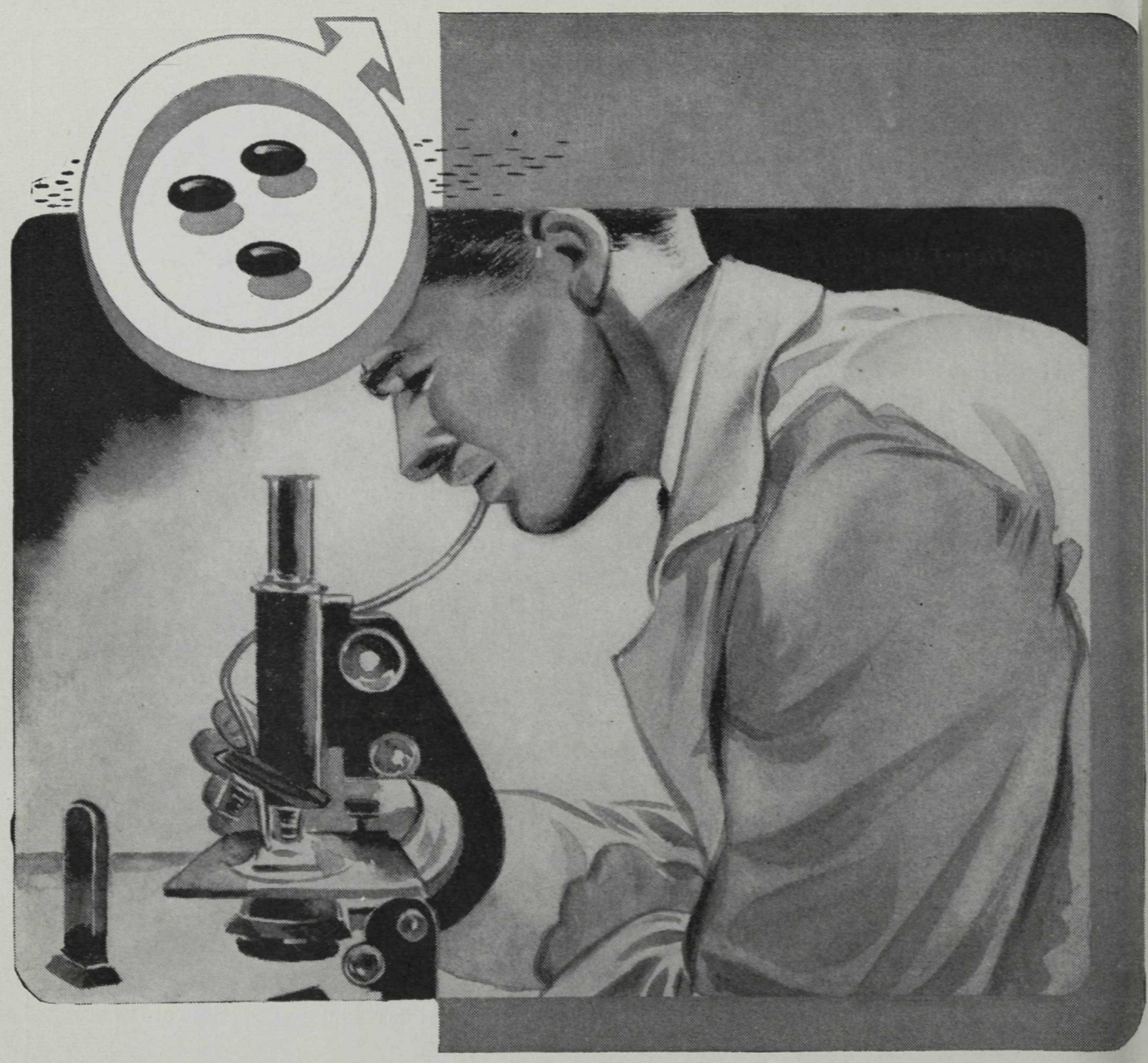

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Hematinic Plastules are an economical iron preparation especially effective for the treatment of the iron deficiency anemia of pregnancy, for chronic blood loss, or post-infection anemia.

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VANCOUVER HEALTH DEPARTMENT

STATISTICS — FEBRUARY, 1942

Total Population—estimated	272,352
Japanese Population—estimated	8,769
Chinese Population—estimated	8,558
Hindu Population—estimated	360

	Number	Rate per 1,000 Population
Total deaths	273	13.1
Japanese deaths	6	8.6
Chinese deaths	16	23.7
Deaths—residents only	232	11.1
BIRTH REGISTRATIONS:		
Male, 269; Female, 272	541	26.0

INFANTILE MORTALITY:	Feb., 1942	Feb., 1941
Deaths under one year of age	17	7
Death rate—per 1,000 births	31.4	16.9
Stillbirths (not included in above)	8	6

CASES OF COMMUNICABLE DISEASES REPORTED IN THE CITY

	January, 1942		February, 1942		Mar. 1-15, 1942	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Scarlet Fever	39	0	33	0	22	0
Diphtheria	0	0	3	0	1	0
Diphtheria Carrier	1	0	3	0	0	0
Chicken Pox	235	0	191	0	209	0
Measles	34	0	32	0	29	0
Rubella	12	0	25	0	34	0
Mumps	342	0	445	0	365	0
Whooping Cough	25	0	16	0	20	0
Typhoid Carrier	0	0	0	0	0	0
Typhoid Fever	1	0	0	0	0	0
Undulant Fever	1	0	1	0	0	0
Poliomyelitis	0	0	0	0	0	0
Tuberculosis	37	17	39	16	18	–
Erysipelas	0	0	3	0	4	1
Miningococcus Meningitis	5	1	3	1	4	0

V. D. CASES REPORTED TO PROVINCIAL BOARD OF HEALTH, DIVISION OF VENEREAL DISEASE CONTROL

	Burnaby	West Vancr.	Richmond	North Vancr.	Vanc. Clinic	Hospitals & Private Drs.	Totals
Syphilis	0	0	0	0	12	27	39
Gonorrhoea	0	0	5	1	50	25	81

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Threatened abortion

Menorrhagia and metrorrhagia of functional origin

After-pains following child-birth

Dysmenorrhœa unassociated with uterine hypoplasia

Tonic contraction of the uterus

A booklet entitled "The Therapeutic Application of Progestin B.D.H." has been published recently. A specimen of this publication will be sent to any practitioner on request.

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The advantages of this drug over pituitary extract as an oxytocic are:

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There is no danger of shock as has been described with pituitary extract

Literature on request

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In 1939 there were 197 deaths from measles in Canada. More than 95 per cent of these were in the age-group 0-5 years.

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Microcaps Calcium Pantothenate	—10 mg.
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VANCOUVER MEDICAL ASSOCIATION

Founded 1898 :: Incorporated 1906

Programme of the Forty-fourth Annual Session (Winter Session)

GENERAL MEETINGS will be held on the first Tuesday of the month at 8:00 p.m.
CLINICAL MEETINGS will be held on the third Tuesday of the month at 8:00 p.m.
Place of meeting will appear on the Agenda.
General meetings will conform to the following order:
8:00 p.m.—Business as per Agenda.
9:00 p.m.—Papers of the evening.

1942

January 6—GENERAL MEETING.
Dr. F. N. Robertson: "A Simple Test for Cancer."

January 20—CLINICAL MEETING.

February 3—GENERAL MEETING.
Dr. J. H. MacDermot: "Epi-Sacro-Iliac Lipomata—A small cause of much trouble."

February 17—CLINICAL MEETING.

March 3—GENERAL MEETING
Osler Lecture—Dr. D. E. H. Cleveland.

March 17—CLINICAL MEETING.

April 7—GENERAL MEETING.
Dr. L. H. Appleby: "The Use of Snake Venom in Medicine."

April 21—CLINICAL MEETING.

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Total solids	*5.87 gm.*
Ethyl alcohol (7.9% by volume)	*6.25 gm.*
Total carbohydrates	*3.86 gm.*
Reducing sugars as glucose	*0.66 gm.*
Protein	*None*
Total nitrogen	*0.10 gm.*
Ash	*0.28 gm.*
Phosphorus	*38.50 mg.*
Calcium	*7.00 mg.*
Iron	*0.072 mg.*
Copper	*0.049 mg.*
Fuel value	*61 cal.*
Vitamin B1	*6 Int. Units*
Vitamin G	*33 Sherman Bourquin Units*

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A convenient, inexpensive form of B complex. May be taken in liquids, on cereals or in the natural dry state.

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LITERATURE ON REQUEST

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THE EDITOR'S PAGE

A questionnaire on Health Insurance, to which we referred last month, and which was sent to every medical man in Canada, received very careful attention from the majority of men in B. C. at least. The replies to the various questions were tabulated carefully, and listed in a many-paged document by Dr. Thomas, Executive Secretary of the B. C. M. A., and are being used as reference by the Committee of the Canadian Medical Association, which is meeting the Federal Government representatives.

A breakdown of these replies shews on the whole a remarkable degree of unanimity amongst the profession in its attitude towards each question. The replies were constructive in many instances, and very helpful. The replies shewed that the men in this province at least are well acquainted with the situation and know pretty well what they want and why they want it.

Some men have suggested that this is no time to be worrying about post-war matters, to be "fiddling while Rome is burning." We do not agree with this attitude. Now is distinctly the time to be laying foundations, at least, for the building that will be urgently needed afterwards. In the welter and confusion that will be inevitable at that time, clear-headed thinking and planning will be almost impossible, unless lines of action have been laid down beforehand, and principles defined to govern policy. Moreover, men will be flooding back into practice, and we should know how to safeguard their interests and avoid the dangers of unbridled competition which are likely to arise.

Some of those replying did not think much of the questionnaire, and felt that it should have been much more definite and drastic. Well, the best answer to such is that it took a long time and much discussion by a great many men who had been studying the subject for many months, to frame this document. It is the hardest job in the world to condense, without leaving out essentials: and this was the problem here. Nevertheless, we feel that the questionnaire, and the knowledge gained from the answers thereto, will prove to be of great value and assistance to our leaders, when they come to discuss these matters with those "set in authority over us."

* * * *

Gasoline rationing is with us at last, and we all sincerely hope it will accomplish the object aimed at. Meantime, we feel that a good many of our members are going to feel a bit of a pinch as a result of underestimating their requirements. There seems to have been some misunderstanding in this regard—as most of us thought from reading the advance literature on the subject, that the fact of being a doctor would entitle us automatically to a C category. But this was not so, and one can easily see why. Meantime, the increasing shortage of medical men is liable to increase our prospective mileage in the coming year—and some of us are going to find it very difficult to stay within the limits allotted to us in the B category.

In the last issue of the BULLETIN we called attention to this point, of shortage of medical personnel, and suggested that some collective action be taken to improve conditions, both for us and the public. We still feel that this should be done.

* * * *

Next month will be the Canadian Medical Association's Annual Meeting, to be held at Jasper, Alta. The B. C. Medical Association is holding its Annual Meeting at the same time and place.

Reservations for accommodation are being made steadily, and we urge all those who plan going to the Convention to make their arrangements early. This can be done by telephoning the Travel Service of the Hotel Vancouver.

The BULLETIN desires to record an error committed by its Editorial Department: one which it regrets extremely, and for which it desires to apologise sincerely.

The apology is due to Dr. William Magner, of Toronto, who lectured to the Summer School of the Vancouver Medical Association not long ago. We felt fortunate indeed in having secured his papers for publication. He was good enough to prepare them in excellent typewritten form, clearly and most conveniently from our point of view. We had the papers arranged for serial publication; unfortunately two of them became somewhat mixed—the end of one was omitted altogether.

That this should have happened is quite inexcusable. It detracts greatly from the appearance and value of Dr. Magner's excellent papers, and while he has been most generous and kindly over it, it must nevertheless be very annoying to him.

We intend to try and remedy this, as far as we can, by readjustment of the papers already printed, and by greater care with those yet to come. Meanwhile, we again express our very sincere regret.

NEWS AND NOTES

NOTICE

All doctors, who desire to operate their automobiles during military emergencies, air raids or blackouts, should complete the registration form for civilian protection services (A.R.P.). It is well to be registered in case of injury while on duty.

Dr. C. H. Hankinson of Prince Rupert, President of the British Columbia Medical Association, came to Vancouver for the meeting of the Board of Directors on March 21st, and presided at the dinner and business session. Dr. Hankinson had made a special trip to meet Dr. T. C. Routley, General Secretary of the Canadian Medical Association, and had planned to accompany Dr. Routley to Victoria and attend a dinner at the Union Club, which had been arranged by the Victoria Medical Society. He had planned to attend a special luncheon in Vancouver on March 24th. Unfortunately, Dr. Routley was seriously overtaken by a cold which he had been harbouring since leaving the Maritimes, a fortnight earlier. The disappointment occasioned by Dr. Routley's illness was relieved when he recovered sufficiently to leave for Edmonton at the end of the week. It was necessary to cancel all other engagements and after the meeting at Edmonton he proceeded directly to his home in Toronto.

* * * *

Dr. F. M. Auld of Nelson and Dr. Arnold Francis of New Denver travelled to Vancouver for the meeting of the Board of Directors on March 21st.

* * * *

Dr. Murray Blair, representative from British Columbia on the Executive Committee of the Canadian Medical Association, left by T.C.A. on Wednesday, April 8th, to attend sessions in Ottawa on the 10th and 11th.

* * * *

Dr. Wallace Wilson, Chairman of the Committee on Economics of the Canadian Medical Association and a member of the Committee of Seven, left by plane on Sunday evening, April 5th, to attend important sessions of the latter committee in Ottawa.

Major M. McC. Baird, R.C.A.M.C., and Mrs. Baird are receiving congratulations on the birth of a daughter on February 25th.

* * * *

Capt. M. M. MacPherson, R.C.A.M.C., and Mrs. MacPherson, are receiving congratulations on the birth of a daughter on March 30th.

* * * *

Congratulations to Dr. and Mrs. Victor Drach on the birth on March 21st of a daughter.

* * * *

Dr. and Mrs. W. H. Ormond of Salmo are receiving congratulations on the birth of a son.

* * * *

Congratulations to Dr. and Mrs. G. B. Helem of Port Alberni on the birth of a son, on March 31st.

* * * *

Dr. E. Therrien of West Vancouver recently had a few days' holiday on Vancouver Island.

* * * *

Dr. R. V. McCarley of North Vancouver spent a few days in Victoria recently.

* * * *

Lieut.-Col. George Black, O.B.E., who is reported killed during the recent fighting in Hongkong, was known in British Columbia in that he lived in Victoria and was a fellow graduate of a number of medical men in this Province. Dr. George Black had been associated in practice with a group since 1908. His friends will regret his passing. Nothing definite is known regarding the present whereabouts of his wife and daughter, who, according to latest reports, were still in Hongkong.

* * * *

We learn with regret that Dr. W. A .Coghlin has been a patient in the Trail hospital following an operation.

* * * *

Wing-Commander E. E. Day, formerly Principal Medical Officer, Western Air Command, Victoria, is now stationed at Edmonton.

* * * *

Wing-Commander F. J. Cheesman is now Principal Medical Officer, Western Air Command, with headquarters in Victoria. Wing-Commander Cheesman was in practice in New Brunswick prior to the war.

* * * *

NOTICE

Because of the necessity of conserving gasoline, all doctors are urged to remind their patients to have requests for calls made as early in the day as possible, preferably before 9 a.m.

CANADIAN MEDICAL ASSOCIATION SURVEY FOR WAR PURPOSES

Canadian Medicine is asked to supply, for the information of the Military Authorities, a present picture of its ability to meet the needs imposed by war in regard to the Armed Forces and the Civil Population. You are urged to complete and return this important form.

LIBRARY NOTES

RECENT ACCESSIONS TO LIBRARY:

Transactions of the American Proctological Society, 1941.
American College of Surgeons, 1942-43.
Surgical Clinics of North America, Symposium on Surgical Technique, Chicago Number, February, 1942.
(A detailed list of the contents of this Symposium is given below for the information of those who have not yet seen it.)

Appendectomy by the Muscle-splitting Technique—By Dr. E. Lee Strohl.
Technique for the Repair of Inguinal Hernia—By Dr. William M. McMillan.
Intestinal Obstruction—By Dr. M. H. Streicher.
Surgical Management of Peptic Ulcer—By Dr. Charles B. Puestow.
Technique of Splenectomy—By Dr. Warren H. Cole.
Technique of Cholecystectomy—By Dr. Ralph Boerne Bettman.
Technique of Vaginal Hysterectomy—By Dr. N. Sproat Heaney.
Open Reduction of Fractures—By Dr. Kellogg Speed.
Management of Ununited Fractures of the Shaft of the Femur—By Drs. William R. Cubbins, James J. Callahan and Carlo S. Scuderi.
Treatment of Separation of the Upper Femoral Epiphysis—By Dr. Fred W. Hark.
Technique of Transurethral Prostatic Resection—By Dr. Herman L. Kritschmer.
Perinephritic Abscess—By Dr. Frederick Lieberthal.
The Nonsurgical Relief of Pain—By Dr. Paul C. Bucy.
Technique of Spinal Cord Surgery—By Dr. A. Verbrugghen.
Surgical Treatment of Acute Vascular Occlusions—By Dr. Geza de Takats.
Technique of Thyroidectomy—By Dr. Lindon Seed.
Technique of Tonsillectomy and Adenoidectomy—By Dr. George E. Shambaugh, Jr.
Nasal Deformities, Abrasions and Accidental Tattoos, Scars, Keloids and Scar Contractures—By Dr. Paul W. Greeley.
Collapse Therapy of Pulmonary Tuberculosis and the Treatment of Empyema.—By Dr. John M. Dorsey.
Blood Transfusion—By Drs. Leo M. Zimmerman, Sidney O. Levinson and Harold Laufman.

NOTICE

The following books and journals are missing from the library shelves, without having been signed out:

British Medical Journal, July 12th number, 1941.
American Journal of Surgery, October number, 1941.
American Journal of Medical Sciences, January number, 1942.
Canadian Medical Journal, February number, 1942.

It is urgently requested that these be returned to the library immediately.

NEW FORMULARY

Please Note: *ERROR*—Section 4, Part 6, Diseases of Respiratory System.
Prescription No. 6 should read:—

Liquor Epinephrinae Hydrochloridi.
℞ **Solution of Epinephrine**
Hydrochloride C. F.,
0.1% (1 in 1000)
Dose by injection—2 to 8 minims
0.13 to 0.50
(0.1% *NOT* 1%)

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First Vice-President	Dr. A. H. Spohn, Vancouver
Second Vice-President	Dr. P. A. C. Cousland, Victoria
Honorary Secretary-Treasurer	Dr. A. Y. McNair, Vancouver
Immediate Past President	Dr. Murray Blair, Vancouver
Executive Secretary	Dr. M. W. Thomas, Vancouver

MEETING OF BOARD OF DIRECTORS

The Board of Directors of the British Columbia Medical Association met on Saturday, March 21st, 1942, following dinner at the Hotel Vancouver.

Those present included: Dr. C. H. Hankinson of Prince Rupert, President; Dr. A. H. Spohn, 1st Vice-President; Dr. P. A. C. Cousland of Victoria, 2nd Vice-President; Drs. F. M. Auld of Nelson, Murray Blair, F. M. Bryant of Victoria, D. F. Busteed, W. A. Clarke of New Westminster, Arnold Francis of New Denver, R. W. Garner and C. T. Hilton of Port Alberni, G. O. Matthews, A. H. Meneely of Nanaimo, H. H. Milburn, K. D. Panton, Stanley Paulin, G. F. Strong, Ethlyn Trapp, C. H. Vrooman, Wallace Wilson, A. Y. McNair, Honorary Secretary, and M. W. Thomas, Executive Secretary.

Complying with a request from the Honourable John Hart, Premier of the Province of British Columbia, Dr. Howard Spohn was appointed to represent the British Columbia Medical Association on the Advisory Council of the Provincial Civilian Protection Committee. Dr. A. Y. McNair was chosen to act in the capacity of alternate to attend meetings of this Advisory Council when Dr. Spohn found himself unable.

Dr. G. F. Strong, Chairman of the Committee on Programme in the British Columbia Medical Association, was appointed to serve as liaison member on the General Jasper Convention Committee. This action was taken at the request of the Alberta Division.

In response to a request from the Canadian Medical Association that a special committee be set up within each province, which would concern itself with a study of Emergent Epidemic Diseases during and after the war, Dr. G. O. Matthews, Chairman of the Committee on Public Health of the British Columbia Medical Association, was appointed to this Committee in British Columbia and will serve as representative from this province on the national committee.

Dr. Murray Blair, representative from British Columbia on the Executive Committee of the Canadian Medical Association, and Chairman of the Divisional Advisory Committee in British Columbia, briefly presented the reasons underlying the need and importance of the new survey for war purposes being carried out by the Canadian Medical Association at this time. After hearing the explanation by Dr. Blair, the Board of Directors decided to support the Canadian Medical Association in its effort to secure this information at the earliest possible date. The Divisinal Advisory Committee had drafted a letter which would be sent to all men in British Columbia urging early completion and return of the survey card.

Dr. K. D. Panton, Chairman of the Committee on Medical Education, presented a progress report which told of the effort of his Committee to arrange that pre-medical education at the University of British Columbia be in complete conformity to the need of students entering the Faculty of Medicine in any Canadian university.

Dr. C. H. Vrooman, Chairman of the Committee on Pharmacy, reported to the Board of Directors that the new Formulary, in the preparation of which the Committee had assisted a committee of the B. C. Pharmaceutical Association, was now ready for

distribution to the profession. The secretary was instructed to write to the secretary of the Pharmaceutical Association conveying the appreciation of the Board of Directors. Dr. Vrooman and his Committee were thanked for their effort in this matter.

JASPER MEETING

JUNE 15th - 19th inclusive

Annual General Meetings of College of Physicians and Surgeons and British Columbia Medical Association will be held Tuesday, p.m., June 16th.

Please Note: The following information is collected from a letter written by Dr. Gordon C. Gray, of Edmonton, Chairman of the Housing Committee, Jasper Convention Committee:

"The following are the special rates quoted for the Canadian Medical Association Meeting, June 15th-19th, 1942, at the Jasper Park Lodge:

For Double Rooms equipped with either private tub or shower bath—$16.00 a day or $8.00 per person.

For Double Rooms without private bath or shower—$12.00 a day or $6.00 per person.

All the double rooms are equipped with twin beds. In order to accommodate the entire party at the Lodge, it would be necessary for most of the delegates to go two to a room.

The Lodge is operated on the American Plan and the rates include meals.

The special rate quoted to you on Railway transportation and four days at Jasper includes $24.00 which is the **minimum** rate of **$6.00** a day per person for four full days (*viz.*, arriving midday Tuesday, with departure at midday on Saturday). This rate is only applicable to rooms **without** private bath or shower. For rooms equipped with private bath or shower the rate as noted above is $8.00 a day per person."

* * * *

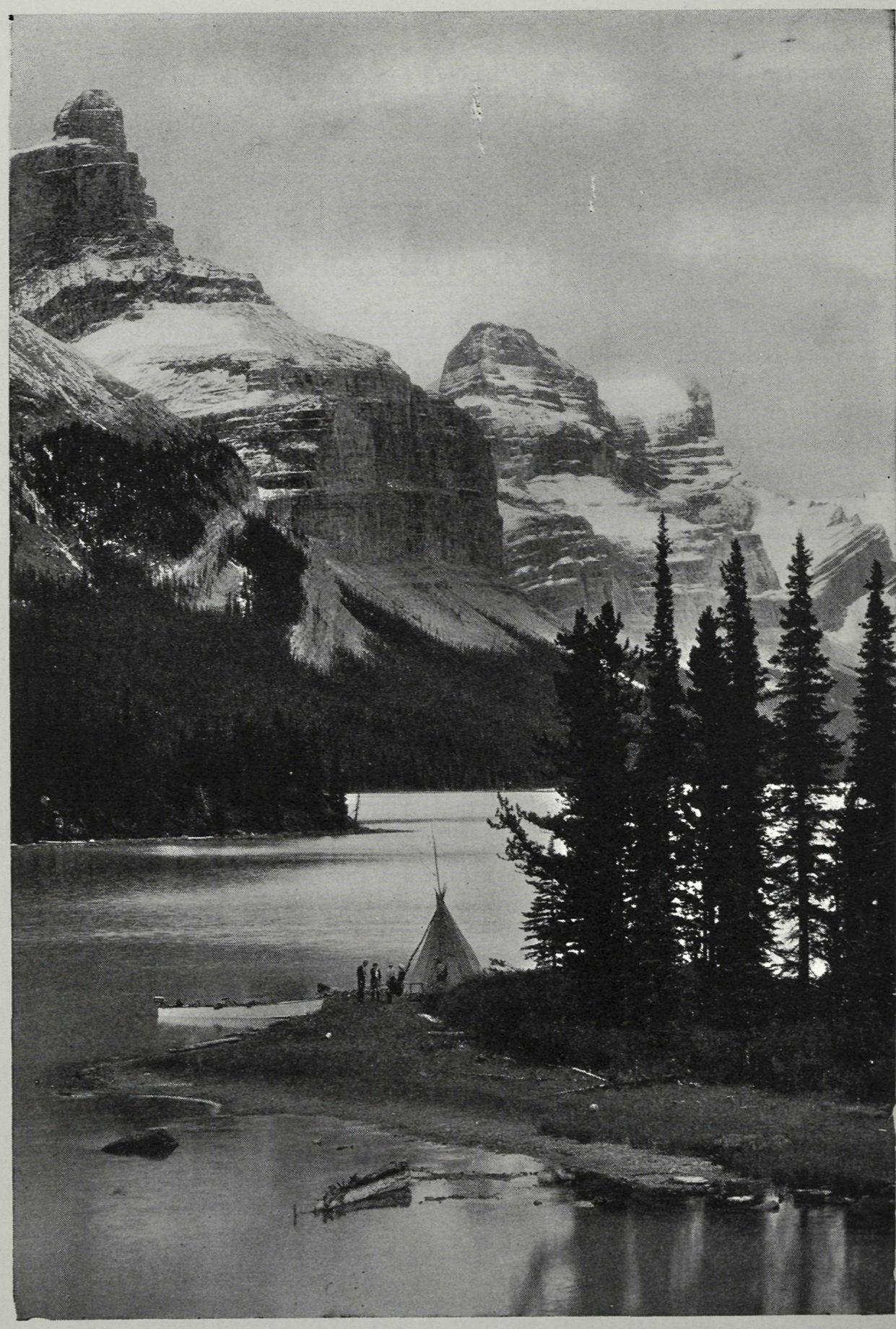
The rates from points in British Columbia were published in the March number of the BULLETIN. The rate of $63.75 from Vancouver and $66.70 from Victoria includes $24.00 for four days' room and board at Jasper Park Lodge. The above extract from Dr. Gray's letter would indicate that where private bath or shower is desired that $2.00 extra per day per person would be required.

Present indications make us predict a large attendance of British Columbia members. Reservations may be made at any C.N.R. office or directly with Dr. G. C. Gray, 236 Tegler Building, Edmonton, Alta. The C.N.R. office in the Hotel Vancouver is accepting bookings for accommodation at Jasper.

A special train will leave Vancouver on Monday evening, June 15th, arriving about noon on Tuesday, June 16th. The all inclusive return fare provides a standard lower berth each way.

$13.00 extra is required for meals and berth on steamer going or returning via Prince Rupert.

Please refer to March number of the BULLETIN for other information and special all-inclusive rates as from various points.



Maligne Lake, one of the beauty spots of Jasper National Park. It is at Jasper that the Canadian Medical Association will hold their Annual Meeting, June 15-19.

BRITISH COLUMBIA CANCER INSTITUTE
ANNUAL MEETING HONORARY ATTENDING STAFF

The Annual Meeting of the Honorary Attending Staff of the British Columbia Cancer Institute was held on March 6th at the Institute. The newly appointed staff for 1942 represents all departments of medicine and surgery, and is made up of the following members: Dr. T. H. Lennie, Chairman; Dr. H. H. Pitts, Honorary Secretary; Drs. A. M. Agnew, C. E. Brown, Harold Brown, H. H. Caple, D. E. H. Cleveland, W. L. Graham, E. R. Hall, B. J. Harrison, W. E. Harrison, F. J. Hebb, A. T. Henry, G. L. Hodgins, R. E. McKechnie, Jr., J. A. McLean, J. R. Naden, A. E. Trites, F. A. Turnbull, L. R. Williams.

Dr. Ethlyn Trapp, the Medical Superintendent, submitted the annual medical report of the Institute. She reviewed the original objectives of the British Columbia Cancer Foundation, assessed the progress that has been made since its inception in 1935, and made suggestions for future development.

The objectives as originally stated were:

1. The collection and distribution of funds for the control of cancer in British Columbia.
2. The improvement of facilities for diagnosis and treatment of cancer in British Columbia.
3. The education of the profession and the public with regard to cancer in British Columbia.
4. The necessity of wide publicity regarding cancer.
5. The establishment of desirable clinical research work among cancer sufferers.

1. *The Collection and Distribution of Funds for the Control of Cancer*:

This is always of fundamental importance but only indirectly concerns the Medical Staff.

2. *The Improvement of Facilities for Diagnosis and Treatment of Cancer*:

The generosity of an anonymous donor made possible the British Columbia Cancer Institute which was opened in November 1938, as a centre for the diagnosis and treatment of cancer. It is now well over its third year of active life. The operation of its diagnostic clinic has served a useful purpose in the community. In the course fo its short life patients have been referred from more than 150 different locations, medically investigated at the Institute, and appropriate treatment arranged. When radium is required this treatment is carried out by the Institute staff.

Each year shows an increase in the number of new patients admitted to the Institute as well as an ever increasing number of follow up examinations. In 1940 there were 317 new patients and 1417 follow up examinations. In 1941 there were 374 new patients with 1647 follow up examinations. Of the new patients 178 were residents of Vancouver and 196 from other parts of the Province. All types of cancer have been treated —by radium, x-ray therapy, and surgery, or a combination of these. In types—skin cancer leads numerically, followed by cancer of the cervix, breast, lip, uterus, and colon in the order mentioned. It is yet too early in the life of the Institute to make any statement of the percentage of cures.

3. *The Education of the Profession and the Public with Regard to Cancer*:

This is being carried out by two organizations, namely the Department of Cancer Control of the Canadian Medical Association and the Canadian Society for the Control of Cancer. Both these societies were made possible by the King George V Jubilee Cancer Funds. The former is for the education of the medical profession and the latter that of the lay public. The Cancer Institute has played its part in both of these educational effoffrts in the following ways:

1. By the holding of wekly diagnostic clinics to which doctors may bring or refer patients suspected of having cancer.

2. By taking advantage of medical meetings to bring cancer to the minds of the profession. In March, 1941, the Vancouver Medical Association gave an entire evening to the subject. At this meeting Dr. Wallace Wilson spoke of the work of the Institute.

   Again in June at the scientific exhibit of the Annual Meeting of the Canadian Medical Association in Winnipeg and in connection with a symposium on cancer of the cervix, a set of diagrams illustrating the League of Nations' staging of cancer of the uterine cervix was shown. They were prepared for the meeting by Miss Dorothy Findley, radium nurse at the Institute. These diagrams were shown again at the annual meeting of the British Columbia Medical Association held in Vancouver last September. In connection with this meeting the Institute staff prepared a clinical demonstration for a meeting held in the Vancouver General Hospital. Following this demonstration visiting doctors were invited to the Institute where other clinical demonstrations had been arranged.

3. By co-operating with Nursing Departments and Public Health groups in supplying education on cancer by means of outside lectures and teaching demonstrations at the Institute. Several of these have been given for different groups such as undegraduate students from the Physics Department of the University, Social Service students and Public Health Nurses.

4. *The Necessity of Wide Publicity Regarding Cancer*:

In this connection some publicity work has been done in collaboration with the B. C. Branch of the Canadian Society for the Control of Cancer. Through its nation-wide organization this Society is in a position to take the initiative in pubilc education. The Institute has done what it could to assist in this work.

4. *The Necessty of Wide Publicity Regarding Cancer*:

Another definite link with the public is the Women's Auxiliary which has been in operation during the past year, under the Chairmanship of Mrs. Bryce Fleck. The members hold monthly meetings in the Institute and have rendered invaluable aid in driving poor and incapacitated patients to the hospital and Institute for treatment. As the Institute expands the further potential usefulness of such a group becomes apparent.

5. *The Establishment of Desirable Clinical Research Work Among Cancer Sufferers*:

The first steps in this direction were initiated last year when two clinical research problems were undertaken in collaboration with the Vancuover General Hospital.

A pain clinic is held every Thursday afternoon under the direction of Dr. Frank Turnbull. This was undertaken with the object of gaining further knowledge of the onset, nature and relief of pain in cancer patients.

The Institute is also collaborating with Dr. Fred N. Robertson in his research on the Robertson Cancer Test. All patients coming to the Institute, whether for treament or follow-up examination, are asked to have this test. Results on all our patients, which comprise 5% of the whole, were reviewed early in the year and discussed when Dr. Robertson read his paper before the Vancouver Medical Association.

The routine work of the Institute is carried out as follows: A regular Friday morning clinic is held each week when the diagnosis is discussed and the type of treatment decided upon. Interesting follow-up cases are also presented. Periodically the pathologist, Dr. H. H. Pitts, discusses cancer histopathology and has a screen demonstration of biopsy sections taken from Institute patients.

In addition to these Friday morning clinics a gynæcological clinic is held every Wednesday morning for the purpose of examining new patients with possible cancer of

the uterus, and arranging their treatment. Routine follow-up examinations of treated uterine cases are also made at this time.

Dr. Trapp outlined suggestions for future work along clinical and educational channels. The prospect of increased facilities by the addition of a deep x-ray therapy unit widens the clinical horizon, but the education programme needs some thought. Primarily this should mean the education of members of the Staff and secondarily that of other members of the profession. It was suggested that the Staff look upon itself as a cancer study group, i.e., a group of medical men vitally interested in the study of the diagnosis, treatment and subsequent history of cancer patients and as such formulate plans for the carrying out of specific objectives, for example:

1. To correlate the results of treatment of each type of cancer that comes under the care of the Institute, and on the basis of knowledge gained through this work, and the published work of other clinics, lay down broad principles of treatment for different types of cancer.

2. To keep abreast of the latest developments in the diagnosis and treatments of cancer. To facilitate this it was suggested that members of the Staff take turns in reviewing current periodicals and abstracting interesting articles for the benefit of the whole staff. Such abstracts to be read at study group meetings.

3. Another function of a cancer institute must be to encourage the general practitioner to become cancer conscious and to do this he must in some way be brought into the picture himself. With this thought in mind it was suggested that local doctors be asked to attend clinical staff meetings when their own particular patients are being discussed. In order to elicit the interest of the interns it was suggested that they also be invited to attend the clinical meetings.

It has always been the practice of the Institute to refer patients back to their own doctors, but the Staff should stress the importance of having frequent follow-up examinations by the referring physicians, and encourage the formation of study groups in communities throughout the Province so that each group may keep in touch with the progress of all its own cases.

In conclusion, the following specific suggestions were made for the staff study group:

1. Round table discussions on prearranged subjects.

2. Regular abstracting of current literature.

3. Each specialty to form a sub-group and lead in the study of cases related to its own specialty and be responsible for a periodic review of all such cases treated through the Institute.

4. Staging of diseases. For the past two years the League of Nations staging for cervix cancer has been used at the Institute. Such staging is a help in deciding on the type of treatment, and in assessing the results. Similar staging should be used for mouth, including the lip, tongue and buccal mucosa, breast and skin cancers. This is now done at the Radiological Institute in Toronto with satisfactory results.

After a free discussion of the suggestions outlined by the Medical Superintendent, they were endorsed in principle and plans laid for the work of the coming year.

DOMINION INCOME TAX RETURNS BY MEMBERS OF THE MEDICAL PROFESSION

As a matter of guidance to the medical profession and to bring about a greater uniformity in the data to be furnished to the Income Tax Division of the Department of National Revenue in the annual Income Tax Returns to be filed, the following matters are set out:—

INCOME

1. There should be maintained by the Doctor an accurate record of income received, both as fees from his profession and by way of investment income. The record should be clear and capable of being readily checked against the return filed. It may be maintained on cards or in books kept for the purpose.

EXPENSES

2. Under the heading of expenses the following accounts should be maintained and records kept available for checking purposes in support of charges made:

(a) Medical, surgical and like supplies;

(b) Office help, nurse, maid and book-keeper; laundry and malpractice insurance premiums (It is to be noted that the Income War Tax Act does not allow as a deduction a salary paid by a husband to a wife or vice versa. Such amount, if paid, is to be added back to the income);

(c) Telephone expenses;

(d) Assistants' fees;
The names and addresses of the assistants to whom fees are paid should be furnished. This information is to be given each year on or before the last day of February on Income Tax Form known as Form T.4, obtainable from the Inspector of Income Tax. (Do not confuse with individual return of income, Form T.1, to be filed on or before 30th April in each year);

(e) Rentals paid;
The name and address of the owner (preferably) or agent of the rented premises should be furnished (see (j);

(f) Postage and stationery;

(g) Depreciation on medical equipment;
The following rates will be allowed provided the total depreciation already charged off has not already extinguished the asset value:—

Instruments—Instruments costing $50 or under may be taken as an expense and charged off in the year of purchase;

Instruments costing over $50 are not to be charged off as an expense in the year of purchase but are to be capitalized and charged off rateably over the estimated life of the instrument at depreciation rates of 15 per cent to 25 per cent, as may be determined between the practitioner and the Division according to the character of the instrument, but whatever rate is determined upon will be consistently adhered to;

Library—The cost of new books will be allowed as a charge.

Office furniture and fixtures—10 per cent per annum.

(h) Depreciation on motor cars on cost:

Twenty per cent 1st year;
Twenty per cent 2nd year;
Twenty per cent 3rd year;
Twenty per cent 4th year;
Twenty per cent 5th year;

For 1940 and subsequent years the maximum cost of motor car on which depreciation will be allowed is $1800.

The allowance is restricted to the car used in professional practice and does not apply to cars for personal use.

(i) Automobile Expense; (one car)
This account will include cost of licence, oil, gasoline, grease, insurance, washing, garage charges and repairs; (Alternative to (h) and (i) for 1940 and subsequent years—In lieu of all the foregoing expenses including depreciation there may be allowed a charge of 4½c a mile for mileage covered in the performance of professional duties.) Where the car is not used solely for the purpose of earning income the maximum mileage which will be admitted as pertaining to the earning of income will be 75% of total mileage for the year under consideration.
For 1940 and subsequent years where a chauffeur is employed partly for business purposes, and partly for private purposes, only such proportion of the remuneration of the chauffeur shall be allowed as pertains to the earning of income.

(j) Proportional expenses of doctors practising from their residence—
(a) owned by the doctor;
(b) rented by the doctor.
(a) Where a doctor practises from a house which he owns and as well resides in, a proportionate allowance of house expenses will be given for the study, laboratory, office and waiting room space, on the basis that this space bears to the total space of the residence. The charges cover taxes, light, heat, insurance, repairs, depreciation and interest on mortgage (name and address of mortgagee to be stated);
(b) Rented premises—The rent only will be apportioned inasmuch as the owner of the premises takes care of all other expenses.
The above allowances will not exceed one-third of the total house expenses or rental unless it can be shown that a greater allowance should be made for professional purposes.

(k) Sundry expenses (not otherwise classified)—
The expenses charged to this account shall be capable of analysis and supported by records.
Claims for donations paid to charitable organizations will be allowed up to 10 per cent of the net income and for patriotic donations up to 50 per cent of the net income both upon submission of receipts to the Inspector of Income Tax.
The annual dues paid to governing bodies under which authority to practice is issued and membership association fees not exceeding $100 to be recorded on the return, will be admitted as a charge.
The cost of attending post-graduate courses or medical conventions will not be allowed.

(l) Carrying charges:
The charges for interest paid on money borrowed against securities pledged as collateral security may only be charged against the income from investments and not against professional income.

(m) Business tax will be allowed as an expense but Dominion, Provincial or Municipal income tax will not be allowed.

PROFESSIONAL MEN UNDER SALARY CONTRACT

3. For 1939 and subsequent ears the salary of professional men will be taxed in full without any deductions other than those specified in the Income War Tax Act such as charitable and patriotic donations and payments to superannuation or pension funds. In particular, the cost of operating an automobile, including depreciation thereon, and the annual fees paid to governing bodies will not be allowed.

Please Note: That where doctor receives an allowance for car that this may be claimed for if his arrangement under salary shows it apart from the salary.

STENOSIS OF THE COMMON BILE DUCT

By Dr. Douglas Telford

Presented before the Vancouver General Hospital Staff March 24, 1942.

It is my privilege tonight to discuss briefly Stenosis of the Common Bile Duct. Certain types of this disease will receive no comment. That type, however, which is described as an obliterative fibrous stenosis, and develops, apparently, independently of advanced cholecystic disease, will be considered in detail.

Nature of Entity

The etiology of the extrahepatic biliary tract disease in general, and common duct disease in particular, invites speculation. The bacteriologist accuses the bacteria of invading by way of the lymphatics descending from the liver or ascending from the duodenum. The biochemist conceives of a toxin in the bile descending from the liver, or a ferment in the pancreatic juice ascending from the duct of Wirsung. The physiologist argues that the primary etiological factor is a dystonia of the sphincter of Oddi which obstructs the duct and results in a biliary stasis.

Whatever the agents and whatever the sequence of events, the extrahepatic biliary tract becomes inflamed. The gall-bladder is, apparently, the most vulnerable, and is often the only organ to suffer appreciably. The ducts, on the other hand, usually are damaged slightly. They may, however, suffer severely, especially liable when the infective process has been severe enough to result in advanced cholecystic disease. It is generally argued that because of this association, advanced choledochitis is secondary to advanced cholecystic disease. The sequence is perhaps true in some, but certainly not in all cases. Many examples of advanced common duct stenosis are reported as having developed apparently independently of cholecystitis.

Authorities and Case Reports

E. S. Judd in 1926 reported a series of 64 cases in which stricture of the common duct had developed following cholecystectomy and advanced the opinion that the stricture of the duct was due, in a large number of the instances, to an obliterative cholangitis, which progressed independently of co-existend cholecystic disease.

R. T. Miller in 1927 reported a case for which cholecystgastrostomy was performed. He advanced the opinion that "there was reasonably good evidence that the lesion, a diffuse stenosis of the common duct due to extreme fibrosis, was typical of a distinct group of benign strictures quite apart from either the group due to trauma, or that due to stone."

Edward W. Peterson, in a recently published text, discussed those cases of stenosis of the C.B.D. presenting a so-called Courvoisier gall-bladder, which are too often incorrectly diagnosed as chronic pancreatitis. He cited such a case in a report in 1935, which was assumed at the operating table to be one of obstruction due to chronic pancreatitis, but which at the autopsy table two weeks later showed a cicatricial stenosis of the C. D. in its distal third.

G. E. Wilson, in 1938, reported a case which showed involvement of all the ducts in a fibrous obliterative process. The gall-bladder was normal. Autopsy performed thirteen days later verified the operative findings.

Case Report of Author

The following case has been considered to be not unlike those cited, and is presented, therefore, for your consideration.

A man admitted privately under the service of the speaker to the Vancouver General Hospital on January 9th, 1942. His age, 41; and his occupation, mining.

The chief complaints were lassitude, loss of 20 lbs. in weight, jaundice and gaseous indigestion.

The history dated back 10 years, at which time the patient began to suffer occasional bouts of gaseous indigestion. These bouts lasted several days and were usually precipitated by dietary indiscretions. The attacks were characterized by excessive gas on the stomach with a feeling of fullness and distress, relieved by belching. No pain, no fever and no jaundice were evident.

Three months before admission, the above symptoms became established as a daily occurrence.

One month before admission, new symptoms developed. The patient began to suffer malaise, loss of strength and weight, and at the same time noticed a yellow tinge to his skin, dark urine and light fæces.

Past history of illness was considered entirely irrelevant and contained no reference to acute gastroenteritis.

Physical examination revealed a deeply jaundiced, poorly nourished male. Liver was palpable below the costal margin only on deep inspiration. Palpation of the epigastrium met with moderate resistance, but no mass was detectable. Tenderness was minimal.

Laboratory examinations are of interest:

Red and white blood cell and hæmoglobin estimations were normal.

Blood clotting time was a high normal.

Bleeding time was normal.

Blood Kahn was negative.

Robertson cancer test was positive.

Van Den Bergh was totally the immediate direct and was at the high level of 17.5.

Icterus index was 25.

Urobilinogen was detectable in the urine in 1/20 dilution.

Urobilinogen was not detected in the fæces but bile reaction was positive.

Gastric analysis showed normal value for hydrochloric acid.

X-ray showed no abnormality of stomach or duodenum.

Cholecystography was considered useless and was, therefore, not performed.

Preoperative preparation consisted in bed rest, high carbohydrate-protein diet, administration of vitamin K and bile salts and blood transfusion.

At operation, the liver was seen mildly distended. The gall-bladder was grossly so, being three times normal size. Its walls were only slightly thickened and its lumen contained no stones. The cystic and hepatic ducts were normal, as was the proximal third of the common bile duct. The middle third, however, was greatly thickened, and offered considerable resistance to incision. The lumen of this portion of the duct was narrowed to such a degree that nothing larger than a No. 4 ureteral sound could be passed. The distal third of the common duct was thoroughly examined by reflecting the mobilized duodenum medially. This portion was more involved in the cicatrizing process than was the middle third. The lumen refused to admit even the smallest sound. The ampulla was not visualized transduodenally because the added trauma was considered unjustifiable.

The bile in the gall-bladder was dark and thick that in the ducts was pale and thin.

The pancreas was considered healthy and a biopsy taken from tissue adjacent to the bile duct was reported by Dr. Pitts to be normal pancreatic tissue.

The gall-bladder was anastomosed to the pyloric antrum, providing a ¾-inch communicating stoma. The common duct was loosely closed and Penrose drains were inserted adjacent to the closure.

Progress of the patient following surgery was most gratifying. The jaundice disappeared, and the patient became free of gaseous indigestion. Now, 10 weeks post-oper-

atively, the patient has gained 20 lbs. in weight, and is working full time.

Icterus index now is 7—normal being 4 to 6.

Gastric analysis shows normal readings.

X-ray investigation was carried out by Dr. Harrison four days ago. Stipolac dye, by mouth, gives the same fiindings as barium taken by mouth. A pool of opaque substance is seen to partially fill an otherwise gas-filled gall-bladder. This testifies to the potency of the cholecystagastrostomy and demonstrates how exposed the gall-bladder is to the acid chyme of the stomach.

Conclusion

In conclusion, I would like to suggest that four important considerations warrant open discussion.

1. Are there, in reality, cases of obliterative fibrous stenosis of the common bile duct which are unassociated with and in no way secondary to cholecystic disease?
2. Is this case just cited a true example of such an entity?
3. Is cholecystgastrostomy the ideal treatment?
4. What is the prognosis of a case so treated?

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Mirrizzi, P. L.—Funct. Disturb. of Bile Ducts: *Surg., Gynec. and Obst.*, 74:306, 1941.

Peterson, E. W.—Case Presentation, *Am. Jour. Surg.*, 30:110, 1935.

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OPERATION OF DOCTORS' CARS DURING BLACKOUT OR EMERGENCY

A letter to the College of Physicians and Surgeons from Inspector George A. Hood, O/C Motor Branch, B. C. Police, Victoria, B. C., makes announcement as follows:

Doctors' Cars as essential motor-vehicles will be allowed to operate under Special Permit and proper identification.

Permits may be obtained upon written application to Inspector Hood at the above address.

Application should state: License number (1942); Type of Car; Area of Operation.

Windshield stickers will be supplied.

Doctors will use special headlight-masks, which show a small circular green light, above the ordinary light aperture. (The Department does not supply headlight-masks.)

St. Paul's Hospital

ARTERIOVENOUS ANEURYSMS

L. H. Appleby, M.D., *and* L. A. Patterson, M.D.

Arteriovenous aneurysms, though relatively rare, have an importance that is often not appreciated.

The causal relationship between arteriovenous and cirsoid aneurysms and cardiac damage has been definitely established since Reid first observed it in 1918. The main effects of the fistulæ are cardiac enlargement principally of the right ventricle and eventual decompensation. Miller[1] presents a case who entered the hospital at the age of 43 years with dyspnœa and palpitation on exertion with a diagnosis of "myocarditis." An arteriovenous aneurysm, the result of a bullet wound, suffered 20 years previously, was found in Hunter's canal of the left thigh. Ligation and excision was done, a decrease of cardiac effort of about 100% demonstrated and the "myocarditis" cured.

Vessels involved in the fistula undergo a definite change. The artery proximal to the process becomes greatly thinned, tortuous, and actual aneurysms may develop. The vein, because of the increased function forced on it, becomes "arterialized."

Circulation time in the vein proximal to the fistula is highly accelerated and, as would be expected, highly retarded if the injection is made in a vein distal to the pathological tract.

Blood volume determinations reveal no significant change except in those cases which have gone on to decompensation.

The presence of an arteriovenous aneurysm produces a rise in both the systolic and diastolic blood pressure. The systolic reading reverts to normal, but the diastolic occasionally remains at its elevated level after operation.

The development of an abundant collateral circulation around the fistulous tract is characteristic. For this reason post-operative gangrene of the involved extremity is not reported.

Impairment of the circulation distal to the aneurysm is constant but its effects are marked only in a few cases by cyanosis, chronic ulcers and coldness of the extremity[2].

Operation should be postponed for a period of three to six months after the accident which causes the arteriovenous aneurysm to allow for subsidence of all infection and the absorption of blood unless the rapid onset of cardiac decompensation or extension of the local pathology occurs.

Case 1.—Mr. J. H. D. Age 27. Admitted Jan. 1, 1942.

The patient was well in all respects until Dec. 1, 1941, when he fell while carrying a sawdust fork, one tine of which entered his left thigh. Hæmorrhage was profuse and a tourniquet was necessary during the transfer of the patient to a doctor's office where suturing was done and a pressure bandage applied. The wound healed and the sutures were removed about the tenth day. Since that time the patient has noticed a pulsating swelling in the area of the scar which seems to be gradually increasing in size.

Physical examination revealed a well developed, well nourished white male with a blood pressure of 115/80 and a pulse of 82. Midway over Hunter's canal of the left thigh there is a pulsating mass about 6 by 4 cm. Palpation discloses a thrill and auscultation a to and fro bruit synchronous with the heart's action.

At operation, with the aid of a tourniquet, an incision was made over the aneurysmal dilatation. The surrounding tissue was highly discoloured. The cavity of the aneurysm was at least partially made up of surrounding muscle tissue. This was opened. A large amount of blood escaped. The femoral vessels were dissected upwards to normal tissue,

triple tied and ligated below the Profunda branch and the same procedure carried out just above the area where the vessels disappear under the tendon of the Adductor Magnus. Normal saline irrigations, dusting of the wound with sulphanilamide powder and closure without drainage was carried out.

Post-operative course was uneventful, the patient leaving the hospital on the sixteenth post-operative day. Healing was by primary intention. On no occasion was there evidence of severe impairment of circulation to the extremity.

Case 2. Mr. L. A. P. Age 24. Admitted Sept. 30, 1941.

About five years ago a wound extending through the second toe and five centimeters into the left foot was sustained by an axe. Bleeding was profuse. Suturing was done about twenty-four hours later. Healing was by granulation. One year ago a thrill and to and fro bruit was detected over the old scar and operation for arteriovenous aneurysm carried out in Los Angeles after several consultants suggested permanent cardiac damage would result if the abnormal circuit was not destroyed. Operation at time consisted of excision and ligation of the apparent fistulous and adjacent arterial and venous vasculature. Two weeks after the first operation a recurrent bruit was discovered by Bunnell's Clinic in San Francisco and further operation at a later date advised. During the three months previous to admission the bruit increased in intensity, a thrill appeared and the patient's general health declined.

On admission the patient was a well developed well nourished white male with a pulse rate of 80 and a blood pressure of 120/80.

At operation, with the aid of a tourniquet, an elliptical incision was made excising the old scar in the first left intermetatarsal space. A diffuse cirsoid type of aneurysmal dilatation of the veins and arteries was found closely intermingled and intimately bound down by scar tissue. The Dorsalis Pedis artery was severed high up. This was traced down and the branch traced into the External Plantar artery where it joined the Plantar arch. This was all removed including all the fat and practically everything in the first intermetatarsal space except the belly of the interosseous muscle. The tourniquet was released and some bleeding encountered which was eventually controlled by ligature and packing. The wound was closed and drained. Healing was by granulation for the distal half of the wound. There has been no return of the bruit.

We should make an effort to rule out this condition in all patients with complaints of chronic fatigue, dyspnœa on exertion, or palpitation who have a history of previous traumatic wound or operative incision.

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ROSE HIPS FOR ORANGES

Two hundred tons of rose hips gathered from the hedges of England and Scotland last autumn have been turned into syrup for the older children in Britain who cannot get a regular supply of oranges.

Like the orange, rose hips are a rich source of vitamin C, the anti-scurvy vitamin.

Before the war it never occured to anybody to use rose hips, but when the supply of oranges dwindled a small army of Boy Scouts, Girl Guides, teachers and Women's Institute members turned out into the lanes with their baskets.

Even housewives who were expert jam makers found it difficult to keep the hip hairs out of the syrup and the hips were therefore sent off to nine factories which have now produced from them 600,000 bottles of syrup. Young children are sipping it with relish at the rate of one teaspoonful a day. Two teaspoonsful in the twenty-four hours give all the vitamin C which older boys and girls require.

Britain's Ministry of Health are so pleased with the result that they are hoping for a much bigger collection of rose hips when autumn comes round again.

Vancouver General Hospital

BRONCHOSCOPY

W. E. Harrison, M.D.

I would like to make some remarks on post-operative atelectasis, give a short review of bronchoscopy at the Tuberculosis Unit for the year 1941, and indicate those conditions in which bronchoscopy should be done more frequently.

Post-operative atelectasis is a condition which has been referred to more and more frequently in the literature and its prompt and energetic treatment has made a marked improvement in the end results of post-operative pulmonary complications. Prophylaxis is important, first as inhalations of carbon dioxide and oxygen to stimulate deep respirations and loosen bronchial secretions, and second by frequent changes of the position of the patient to prevent the development of this condition.

Equen and Neuffer, in 1939, at the Forty-fifth meeting of the Ear, Nose and Throat Society, speaking of post-operative atelectasis, state many cases undoubtedly cure themselves by coughing up the mucous plug, many are relieved by the simple procedures such as the inhalation of carbon dioxide and oxygen, frequent change of posture and forced coughing. When the patient's condition does not improve with reasonable trial of this treatment, bronchoscopy is indicated.

In the *Proceedings of The Mayo Clinic,* April, 1940, L. H. Mousel states many cases of so-called post-operative pneumonia are actually cases of atelectasis. He emphasizes the importance of early recognition of the conditions and the removal of the cause, or a true pneumonia with its increased risk will develop from the long-retained secretions. Three case histories are given with the brilliant results of bronchoscopic treatment.

Jackson and Jackson, *Annals of Surgery,* volume 97, 1933, state atelectasis is always obstructive at the beginning, not infective. This conclusion is a result of bacteriologic study of aspirated mucus in typical cases. They contrast the later onset of pulmonary abscess with the early onset of this condition, and also the association of abscess with operations on the nose and throat while atelectasis follows those on the abdomen, more frequently the upper abdomen. "Bronchoscopy is strongly indicated in all varieties of post-operative pulmonary complications" is a statement made in the article. It is their opinion that the use of morphine, codeine and atropine increase the danger of post-operative pulmonary complications by thickening the bronchial secretions and by diminishing the cough-reflex.

Haight and Ransom, writing in the *Annals of Surgery,* August, 1941, speak of post-operative pulmonary complications. They claim that the majority of these are due to retained bronchial secretions. The incidence is influenced by the type of operation, being more frequent in upper abdominal operations and twice as great in gastric operations as those done in the biliary system. It is more frequent in those patients who have had upper respiratory infections and about two and a half times as frequent in the male as in the female. They state that pulmonary complications occur in five to twelve per cent of gall-bladder operations and that transverse incisions lower the incidence. If ordinary methods fail to remove the secretions, either catheter or bronchoscopic suction should be done. A careful description of a comparatively simple technique for catheter-suction is given. Where the mucus is thick and copious and where the symptoms are marked, bronchoscopy is preferred, particularly for the first time, but for repeated aspirations the intratracheal catheter may be satisfactory.

Perrone, *Annals of Otology, Rhinology and Laryngology,* 1940, reports ninety cases of post-operative atelectasis treated by bronchoscopy. Atelectasis was present in 6½% of all surgical cases, being greatest in cholecystectomy in which the incidence was 33⅓%. Gas and ether was the anæsthetic most frequently followed by this compli-

cation and the open administration of ether second. The greatest number of cases developed within forty-eight hours and the right lower lobe was the most frequently involved. He states that if ordinary methods of treatment do not give relief within ten hours, bronchoscopy should be done. In the ninety cases with atelectasis there were six deaths from pneumonia and one from a complication outside the chest.

Bronchoscopy on adults in the Tuberculous Department is always done under local analgesia with 2% pontocaine and sedation of nembutal, morphine and atropine. In the non-tuberculous cases, an additional analgesia is obtained by the introduction of 2 to 4 c.c. of pontocaine into the trachea under direct vision. During the procedure more analgesic is sprayed through the tube on any irritable area. During the operation the patients are always recumbent with their heads held over the end of the table in the proper position by an experienced man. The first time a patient has a bronchoscopic examination he remains in hospital the night before and the night after the operation, but some of those receiving treatment are allowed to come to the Clinic the morning of the procedure and go home the same day. Care is taken that all refrain from eating or drinking for at least two hours after the operation to prevent the aspiration of food into the trachea while the effect of the analgesic is still present in the larynx. A few have had moderate elevations of temperature for a few days post-operatively but there have been no serious complications. One patient died on the table before bronchoscopy was started and at autopsy he was proven to have a far advanced carcinoma of the lung.

TABLE I.

BRONCHOSCOPY

Total number of examinations done	166
Total number of patients examined	102
Of total number of patients—Males	56
Females	46
Of total number of examinations—Male	71
Female	95
Of total examinations—Diagnostic	62%
Therapeutic	38%
Done for symptoms definitely referable to bronchial tree	62%
Done as a routine procedure to explain X-ray findings or before major chest surgery	38%
Routine examination gave positive findings in	26%

There were 166 bronchoscopic examinations or treatments done in the Tuberculous Department in 1941, of which 71 were males and 95 females. One hundred and eleven were tuberculous patients. The number of individuals receiving these procedures was 102, fifty-six males and 46 females. In four cases, it was not possible to pass the instrument into the bronchus though one of these patients was done at a second attempt. One patient received 17 treatments for tuberculous ulceration with stenosis, another 11 for the same condition, and three seven each, a total of 64 treatments being given. In other words, 62% were diagnostic and 38% were therapeutic. Sixty-two per cent were were done on account of symptoms referable to the bronchial tree and 38% were done either as a routine before major chest surgery or on account of suspicious X-ray findings. Of those without symptoms 17 cases, or 26%, yielded positive bronchoscopic findings, the majority of these being in tuberculous patients in whom the findings were bronchitis with or without ulceration and stenosis.

TABLE II.

TREATMENT OF TUBERCULOUS PATIENTS

Tuberculous ulceration: one woman and two men apparently cured by treatment, consistently negative sputum.

Tuberculous ulceration with stenosis: three women much improved, i.e., stenosis lessened and sputum only occasionally positive, with improvement in general condition.

Tuberculous ulceration with stenosis: two women who have just begun treatment.

Uncollapsed cavities: one man whose cavities collapsed following bronchoscopic aspiration, sputum became negative.

Treatment has consisted in shrinking the mucous membrane with neo-synephrin and touching ulcerated areas with silver nitrate solution and in some of the stenotic cases an

attempt at mechanical dilatation. Treatment has not been outstandingly successful, though it is considered that three cases, one woman and two men, have been cured by bronchoscopic treatment, rendering their sputum negative. One man had dramatic closure of persisting pulmonary cavities following bronchoscopic treatment, followed shortly by conversion of his sputum from positive to negative. Two other women with bronchial ulceration and stenosis have been much benefitted, sputum only occasionally positive, stenosis lessened, and their general well-being improved.

TABLE III.

FINDINGS ON NON-TUBERCULOUS PAPTIENTS

Bronchiectasis	7 patients	22%
Carcinoma, not all pathologically proven	9 patients	28%
Non-malignant tumours	3 patients	10%
Lung abscess	2 patients	6%
Chronic inflammatory process	5 patients	16%
Apparent polyposis of trachea	1 patient	3%
Bronchostenosis of unknown origin	1 patient	3%
Bronchoscopically negative (one of these later proven carcinoma by intrapleural biopsy)	4 patients	12½%

The non-tuberculous cases have included 32 patients of whom 22% had bronchiectasis, 28% carcinoma, though all these were not proven pathologically, 10% non-malignant tumours, 6% abscess, 16% chronic inflammatory lesions. Of the remaining six cases one appeared to be a polyposis of the trachea, one had a bronchostenosis of unknown origin and four were negative. One of these negative examinations was later proven to be carcinoma by biopsy from the visceral pleura. Of the nine cases of carcinoma four were proven pathologically.

TABLE IV.

TREATMENT IN NON-TUBERCULOUS CASES

Two abscess cases: one woman cured after opening of bronchus and aspiration of abscess; one man died of hæmorrhage between treatments.
One non-malignant tumour removed successfully with apparent cure.
Attempt to dilate bronchostenosis of unknown origin was unsuccessful in curing though though the lumen was increased in size.

Of the non-tuberculous cases treated, two had abscesses, one was cured apparently and the other died of massive hæmorrhage between treatments; one non-malignant tumour was removed; an attempt to dilate the bronchostenosis of unknown etiology was unsuccessful.

A case not included in the above was done in the Vancouver General Hospital. The patient, a woman in her middle forties, thirty-six hours after a cholecystectomy under ether anæsthesia, developed chest symptoms which were proven clinically and by X-ray examination to be due to an atelectasis of the left lung. In spite of the usual therapeutic procedures, her condition became rapidly worse; she had rapid pulse of poor quality, rapid respirations and marked cyanosis. Bronchoscopic treatment was indicated but by the time preparations were complete, her condition was alarming. However, as other treatment had been of no avail, bronchoscopy was done on the patient in bed. The left main bronchus was found completely plugged with thick mucus which was broken up and a considerable quantity sucked away. Immediately following this, she coughed up more mucus and her condition showed improvement. By the next morning, or about six hours later, she was tremendously improved and she made an uninterrupted recovery. Bronchoscopy would seem to have been a life-saving procedure in this case.

In conclusion, I would like to make the following points:

Bronchoscopy can be done on the vast majority of adults under local analgesia with only moderate discomfort to the patient and with a minimum of post-operative complications.

Bronchoscopy is both diagnostic and therapeutic. In ordinary circumstances the diagnostic side predominates and gives a high percentage of positive results, reported to be about 80%, but certain endobronchial conditions such as small tumours, ulcerations,

stenoses, and a percentage of lung abscesses will yield to treatment by this method. Bilateral bronchiectasis can be improved by repeated bronschoscopic drainage and instillation of medication.

The outstanding success of bronschoscopic suction in proven cases of post-operative atelactasis is well recognized in the literature. It must not be inferred, in my opinion, that bronchoscopy is the first form of treatment to be applied in these cases, but where the ordinary forms of treatment are not successful in relieving the condition, bronchoscopic suction should be done. This can be done quite satisfactorily without moving the patient out of bed.

It would seem, judging from figures from other centres showing the relative frequency of this condition and the small number of cases treated here, that many cases here are either not recognized or the other forms of treatment effect a cure. I must say that I believe that the efficient routine aspiration of the tracheobronchial tree immediately post-operatively by our anæsthetic staff must have a great influence in keeping down the incidence of this condition. However, I would suggest that when a post-operative pulmonary complication presents itself within the first forty-eight hours after an operation, particularly an abdominal operation, atelectasis be the first condition considered and that where the ordinary means of relieving the condition are not effective in a reasonable time, bronschoscopy may be a life-saving procedure.

All patients who have hæmoptysis should have every means used at once to determine its cause. These means should include careful physical examination including the nose and throat, X-ray examination of the chest starting with the ordinary plate and if this is negative radiopaque oil should be injected to outline the bronchi and if negative this should be followed by bronschoscopic examination. In the early stages endobronchial tumours are small and many times will show nothing abnormal either on an ordinary radiograph or after the injection of iodized oil. The only means of finding such tumours is by bronchoscopy. Some small innocent ones can be removed through the bronchoscope. The only hope in the present state of our knowledge for bronchogenic carcinoma is early diagnosis and radical surgery. Bronchoscopy is the only method, in the majority of cases, which offers any hope of an early diagnosis and I believe should be advised in the same way the cystoscopy is advised to determine the cause of hæmaturia.

Bronchoscopy for foreign bodies has purposely been left out of this discussion as the indications are only too obvious in these cases.

RELATIONSHIP BETWEEN HYDATIDIFORM MOLE AND CHORIONEPITHELIOMA

By H. H. Pitts, M.D.

For many years considerable controversy has existed about the relationship between hydatidiform mole and chorionepithelioma of the uterus. Is chorionepithelioma always preceded by mole or may it develop from a pregnancy in which the hydatidiform stage has never manifested itself? Another controversial point is whether hydatidiform mole is a true neoplasm or a degenerative process occurring early in the course of a normal pregnancy. It is generally accepted that chorionepithelioma is not necessarily preceded by hydatidiform mole but may develop following full term pregnancy, abortion and even in tubal and ovarian pregnancy.

In general, hydatidiform mole is a relatively rare disease and chorionepithelioma even rarer. Novak states that the incidence of the former is roughly one in twenty-five hundred pregnancies and those that become chorionepitheliomatous range from one or two to ten per cent, with preference, in his opinion, for the lower figure. He further states that approximately fifty per cent of chorionepitheliomas are preceded by hydatidiform moles; twenty-five per cent by full term pregnancies and twenty-five per cent by abortions.

It might be well to review the structure of the normal chorionic villus. It is formed by a core of mesenchyma penetrating the trophoblastic bud thus forming a villous structure covered by an inner layer of cuboidal cells, the Langhans or cytotrophoblastic layer and an outer layer of cells with ill-defined cell membranes, the syncytium or plasmoditrophoblast, the two layers forming the trophoblast.

A naked eye view of hydatidiform mole shows thin-walled pale cysts in clusters or small clumps enmeshed in blood clot and fibrin, as Professor Chipman so aptly described it as "white currants in red currant jelly." Should it only partially involve the placenta the pregnancy may proceed to full term with delivery of a normal child, but it generally involves the placenta in its entirety and no trace of fœtal structures is apparent. Before the expulsion of the mole the uterus is much larger than the period of amenorrhœa would suggest.

Three characteristic pathological changes are noted microscopically: (1) cystic or hydropic degeneration of the stroma of the villi; (2) excessive trophoblastic proliferation; (3) diminution of the vascular channels.

Until Marchand in 1895 stressed the importance of trophoblastic proliferation, it was the hydropic degeneration of the villous stroma which held the spotlight as being of prime importance. Marchand's view is now generally accepted and this supports the neoplastic theory. The cystic or hydropic change is probably a secondary degeneration.

Novak summarizes the characteristics of benign hydatidiform mole as follows: "Well preserved villous pattern with œdema and degeneration of the stroma; scantiness of blood vessels; considerable degree of trophoblastic activity with no evidence of anaplastic cell changes; no tendency to penetrate into the stroma and no tendency towards destructive invasion of the uterine tissues such as characterizes the malignant type. It may, however, invade the blood channels as does the normal trophoblast.

One reads of malignant hydatidiform mole, destructive mole, or chorio-adenoma destruens, which apparently are moles which show various degrees of atypical trophoblastic proliferation and which, I believe, might be better classed as chorionepithelioma, qualifying the diagnosis as early, moderate, advanced, etc., or graded 1, 2, 3, 4, such as for squamous cell carcinoma. It would appear that it is too fine a distinction to make and serves only to confuse or cloud, rather than clarify the issue. From Novak's remarks concerning this point in his "Gynæcological and Obstetrical Pathology," this would appear to be his view, as he says: "I have described this so-called malignant mole unenthusiastically."

The chorionepithelioma is more apt to be plaque-like or semi-polypoid or even subendometrial, moderately firm, reddish owing to the hæmorrhagic tendency of the tumour process, and may exhibit gross invasion of the uterine wall. In some instances, when a hydatidiform mole has been the precursor, vesicular clumps of the mole may still be present especially in the earlier stages.

Chief Clinical Symptoms of Hydatidiform Mole and Chorionepithelioma:

	Hydatidiform mole	*Chorionepithelioma.*
Uterine hæmorrhage	3 - 5 months usually.	After full term pregnancy, abortion, or passage of hydatid mole.
Size of uterus	Enlarged out of proportion to period of amenorrhœa.	Not particularly enlarged.
Aschheim-Zondek test (Friedman modification)	Strongly plus.	Strongly plus.

Summary of Microscopic Findings in Chorionepithelioma:

Columns, and larger and smaller masses of atypical trophoblastic cells often enmeshed in blood clot. More frequent giant-like or multi-nucleated cells. Rather paradoxical is the fact that though the growth is highly embryonic and anaplastic, mitotic figures are

not a marked feature. Invasion of the uterine muscle planes and vessels by the tumour cells and general fairly complete loss of any villous structures are found.

No small burden of responsibility is placed on the shoulders of the pathologist in the diagnosis of chorionepithelioma from uterine curettings, especially in the early case. Generally speaking, there is a marked atypical trophoblastic proliferation, complete or partial loss or disappearance of the villi and invasion of the uterine wall and vessels in the well advanced case but these findings may not be at all well defined in the earlier case and if the patient is a young woman with no children, to have the final word in committing her to a barren future through hysterectomy, places one in a very unenviable position.

Chorionepithelioma metastasizes chiefly by the blood stream but also by the lymphatics, and metastases are seen in the parametrium, vulva, vagina, lungs, brain, liver and kidneys. It is a highly malignant neoplasm, death resulting in from seventy to eighty per cent of the unquestioned cases, and it is felt that reports of a high percentage of cures suggest an error in diagnosis. Nevertheless, there are numerous recorded instances where, despite the high degree of malignancy of this tumour, spontaneous disappearance of the primary growth or primary growth and metastases has occurred without operation or deep therapy or with incomplete therapy of either kind. It has been suggested that in these cases the host has produced a potent trophoblastic ferment which is capable of destroying even these actively proliferating cell masses. This view is supported by the fact that trophoblastic nests are said to be frequently present in the lungs of women during normal pregnancy and apparently subsequently disappear without any harmful sequelae to the patient.

There is usually a considerable degree of luteal hyperactivity in both hydatidiform mole and chorionepithelioma, and this would seem to be explained by the fact that, as there are characteristic changes produced in the ovary by normal trophoblastic action, so these changes might be augmented or exaggerated by the excessive trophoblastic action in these two conditions. Novak states, however, that the human ovary is only slightly influenced by the chorionic hormone and that the more likely explanation of this hyperluteinization is the excessive production of chorionic hormone through an "activator" principle of some sort, and that this evokes an exaggerated anterior pituitary sex hormone production resulting in hyperluteinization of the ovaries. Hyperluteinization cysts as large as a grapefruit or a child's head have been reported.

The value of the Aschheim-Zondek test or Friedman modification in the diagnosis or follow-up in these cases is also a controversial subject. Negative results have been obtained on repeated occasions in cases which subsequently proved to be either hydatidiform mole or chorionepithelioma, and one finds negative results interspersed between positive results taken at three to four week intervals following the microscopic diagnosis of one or the other. In short, it would appear that one should use this test as an adjunct to thorough clinical and pathological investigation rather than as the sole criterion as to the persistence of hydatidiform mole or chorionepitheliomatous tissue within the uterus or elsewhere in the body.

A few cases of tubal and ovarian hydatidiform mole and chorionepithelioma have been reported, the latter site a very rare one. I have seen only one case of tubal chorionepithelioma and it might be of interest to report it briefly as its subsequent course was very unusual. The patient was a white female, thirty-five years of age, who for the past four months had had irregular menses and lower abdominal pain of varying intensity, chiefly on the right side. Pelvic examination revealed a mass in the right side of the pelvis and the cul-de-sac. Friedman test being positive, a provisional diagnosis of old ectopic pregnancy was made and laparotomy performed. The right tube was found to be enlarged and surrounded by a mass of old clot considerably organized in places. The mass, including the tube, was removed and microscopic examination showed organized blood clot and rather marked trophoblastic proliferation, but no chorionic villi. Because of this atypical trophoblastic proliferation it was suggested, though not definitely stated, that this might be a chorionepitheliomatous process and it should be followed up

by fairly frequent Friedman tests. The patient was discharged from hospital three weeks after operation and re-admitted four weeks later with a history of pain in the back and pelvis "as though it was in the bones" of three weeks' duration. This was followed by pain in the hips and thighs "shooting in character" and "seeming as if the muscles were being over-stretched." Three or four days prior to admission, her feet began to feel numb and tingle; she developed a shuffling gait and felt unstable. Knee-jerks were equal, plus 4; the abdominal reflexes were absent, and there was an area of anæsthesia from the sacral level downward anteriorly and posteriorly. Friedman tests on July 25th (three days after re-admission), August 10th and August 27th were all strongly positive. X-ray examination of the spine revealed no lesion. Deep X-ray therapy of fourteen treatments over the lumbo-sacral region gave no relief of pain, and on October 9th a bilateral cordotomy was done which gave almost complete relief from pain. However, about one week later the patient died.

The chief findings at autopsy were chorionepitheliomatous nodules in the lungs and recurrence about the site of resection of the right tube and ovary. At the level of the eleventh and twelfth thoracic vertebrae on either side of the cord and markedly compressing it was a large almond-nut sized, brownish-red chorionepithelomatous appearing growth, extra-dural and apparently growing from between the lateral processes of these vertebrae but not actually intra-osseous. The cord was compressed in a somewhat pincers fashion by these two metastatic masses but neither actually infiltrated it.

Summary

A short discussion of relationship between hydatidiform mole and chorionepithelioma has been presented. Nothing new has been offered but simply a resumé of the main clinical and pathological characteristics. One might crystallize the findings as follows:

Hydatidiform mole occurs roughly once in twenty-five hundred pregnancies; chorionepithelioma in about fifty per cent of cases follows hydatidiform mole, twenty-per cent abortions, and twenty-five per cent full-term pregnancies. Hydatidiform mole may show chorionepitheliomatous changes in from one or two to ten per cent, with the lower figure probably more nearly correct.

True chorionepithelioma is a highly malignant, metastasizing growth but may spontaneously regress or disappear completely with or without adequate treatment.

Where a hydatidiform mole is being watched for evidence of chorionepitheliomatous transformation, too much reliance must not be placed on the Aschheim-Zondek or Friedman test as to the progress of the case.

SUDDEN DEATH

(Read at Osler Club, February 25, 1942)

H. H. Pitts, M.D.

Sudden death is a generally dramatic and awe-inspiring incident the causes of which are quite diverse. Boyd lists them under seven headings: (1) Cardiac, (2) pulmonary, (3) abdominal hæmorrhage, (4) cerebral hæmorrhage, (5) status lymphaticus, (6) traumatic shock, (7) poisons, and one should bear these in mind as a possible cause when called to attend such a case. In this short paper only the first five will be discussed.

Cardiac.

Probably each one of you has been called on at least one occasion by some frenzied relative, to speed to their home to see someone who has suddenly collapsed, and on arrival found the patient dead, who but a few minutes previously was apparently well and had no thought of a visitation from the Grim Reaper. In the great majority of instances the cause is a coronary thrombosis or occlusion due to extensive calcification and narrowing of one or other of the coronary arteries or their larger branches. While very frequently a history of previous angina may be elicited from the family, it is surprising how

often this is both the first and last attack of substernal pain, feeling of constriction in the chest and possible radiating pain in the left or both arms. I do not wish to imply that in all cases of coronary occlusion death ensues, but in about 50% death occurs immediately or within a few minutes or hours.

Very frequently one reads in the newspapers of someone dying of acute indigestion. These cases are probably all instances of coronary occlusion, but as many of these deaths occur during or after meals when the splanchnic circulation is engorged and an already poorly vascularized myocardium is still further impoverished because of this splanchnic engorgement, with accompanying substernal or epigastric pain, it is no small wonder that such misinterpretations should be made.

Coronary thrombosis with occlusion occurs chiefly between 45 and 60 years of age and predominantly in the male sex. It must be remembered that it practically never occurs in a normal coronary artery but one in which calcification with narrowing of the lumen is present and sets the stage for a thrombosis or occlusion and so-called cardiac failure, by producing a poorly vascularized myocardium which, when the final occlusion occurs, has no reserve and virtually collapses.

Sudden death also occurs in stenosis of the orifices of the coronary arteries in luetic aortitis and both luetic and arteriosclerotic aneurisms of the aorta may rupture to cause sudden death. The arteriosclerotic ones are more apt to be in the descending or abdominal aorta, the luetic in the ascending, arch or thoracic portion, There may be massive hæmorrhage from the mouth if they have ruptured into the oesophagus or trachea or a bulging mass in the anterior chest wall. I have seen one case of rupture of the ascending aorta due to thinning and distention caused by a coarctation of the aorta with complete stenosis at the side of the vestigial ductus arteriosus. This was in a young man 19 years of age.

If death does not occur immediately a cardiac infarct of varying size may result with softening of the myocardium, at which site rupture with massive hæmopericardium may result within a few days, or healing and fibrosis with thinning and bulging of the wall and the formation of a cardiac aneurism which will ultimately rupture, probably some weeks or even months later.

In patients who have recently recovered from acute infections such as diphtheria, pneumonia, influenza, etc., sudden death may occur following some unwonted exertion, and at autopsy one is at a loss to find a very convincing reason for this on a gross pathological basis, except for a softened, turbid heart muscle. One also sees, as stated by Boyd, cases of sudden death apparently from coronary occlusion, in which no coronary disease is present but generally small hypoplastic vessels in a thick, hypertrophied heart muscle, which because of the greater demand for increased blood supply are unable to respond, and cardiac failure with death ensues. One has also seen a coronary embolus originating from a vegetative, ulcerative aortic endocarditis, as a cause of sudden death.

Pulmonary

There is probably no more dramatic or tragic incident than that of a patient who has undergone a major operation from which he or she has made an apparently uneventful recovery, has dressed and is waiting in the hospital room or ward for relatives to take him or her home. On their arrival he or she arises from the chair only to fall into their arms dead. At autopsy a pulmonary embolus or thrombosis is usually found. While pulmonary embolus occurs usually in the second postoperative week, it may occur during the first two or three days. It generally follows pelvic or upper abdominal operations but may occur during the puerperium and in thrombophlebitis of varicose veins. I have seen its occurrence following amputation of a finger for osteomyelitis. It is only the larger masses of organized blood clot detached from a distant area of thrombophlebitis that will cause sudden death if they are sufficiently large to occlude the main branches of the pulmonary artery, otherwise they may be carried onward into the pulmonary circulation to produce infarctions.

Much less frequent causes of sudden death are acute œdema of the glottis, laryngeal diphtheria and foreign bodies in the pharynx and the larynx and no detailed discussion of these will be considered here.

Abdominal Hæmorrhage

Generally speaking, rupture of an abdominal aneurism is almost invariably fatal, while rupture of a tubal pregnancy, hæmorrhage from gastric or duodenal ulcers and œsophageal varices in cirrhosis of the liver are not necessarily so, depending, in the latter three especially, on the size of the vessels eroded. I believe, though ruptured tubal pregnancy presents a picture of marked shock and pallor from hæmorrhage, relatively few are fatal. In these cases there is usually the history of a sudden sharp pain in one or the other lower quadrant, pallor, collapse and possibly amenorrhœa. In the gastric and duodenal ulcer a fairly typical ulcer history may be obtained from the relatives, and there may have been recent hæmatemesis or melæna. In the instance of the cirrhosis cases there will probably be a tense abdomen distended with fluid, œdema of the legs and possibly some jaundice to serve as a possible clue.

In newborn children and infants dying relatively suddenly after having arrived in this mundane sphere after a comparatively uneventful and easy passage, autopsy reveals no evidence of laceration of the tentorium cerebelli or intracranial hæmorrhage but a fairly extensive hæmorrhage into the adrenals may be found and death in these cases is due not to the hæmorrhage itself but to acute adrenal insufficiency. It is said that immediately after birth the entire cortex of the adrenal degenerates, to be gradually replaced by adult cortex and medulla, and it is thought that the hæmorrhage may be the result of this degeneration plus the sudden withdrawal of the female sex hormone which bathe the fœtal tissues during pregnancy. It must be remembered that the fœtal adrenal is a proportionately large organ in the newborn, its weight in comparison to the kidney being as 1 to 3.5, while in the adult it is 1 to 30.

Cerebral Hæmorrhage

In many instances cerebral hæmorrhage or cerebral embolus and thrombosis (which might be included in this group) do not cause death immediately, but where the hæmorrhage is of the intraventricular type, takes place into a large cerebral tumour mass or into the pons or medulla, death is usually practically instantaneous. By the same token, embolism or thrombosis of the medulla or pons will also produce relatively sudden death but probably not as expeditiously as the hæmorrhage. Emboli from endocarditis of the vegetative or subacute bacterial type, from mural thrombi in the left auricle or ventricle, are the most common, but tumour emboli from carcinomata of thyroid, lung, kidney and breast and occasionally from those of the large bowel are sometimes seen. The victims of so-called cerebral accidents, more especially hæmorrhage and thrombosis, are usually of the older age group, with a predisposing cerebral or generalized arteriosclerosis. Cerebral hæmorrhage occurring in those under the age of 40 is generally considered to be due to a luetic arteritis of the cerebral vessels; some of the exceptions to this rule will be discussed later.

Rupture of congenital aneurisms of the Circle of Willis may or may not be immediately fatal depending on the site and the extent of the hæmorrhage. In general the patient is in a younger age group than those with cerebral hæmorrhage or thrombosis, often in their teens, and while some burrow, so to speak, into the brain substance, which serves to some extent as a retaining wall, they may finally reach the wall of the ventricle, into which they rupture, with an immediately fatal result. Others may "leak" and produce symptoms: the patient may recover temporarily, but eventually extensive rupture occurs with death ensuing within a matter, generally, of minutes or hours. Severe pain in the back of the neck, possibly preceded by headache and followed by unconsciousness, spasticity of extremities, high fever, and pure blood in the spinal fluid are the usual history and findings .

Status Lymphaticus

A paper dealing with sudden death cannot be considered complete without some mention of the little understood status lymphaticus or status thymicolymphaticus. One sees, year in and year out, several instances of infants usually under a year of age who, apparently quite healthy, are given their feedings, laid in their cribs or carriages to sleep by the mother, who on returning in an hour or so is horrified to find the child dead. Autopsy may show varying degrees of enlargement of the thymus, usually with petechial hæmorrhages in the heart, lungs and thymus, generalized lymphoid hyperplasia and possibly hypoplasia of the aorta. What is the cause of these sudden, tragic deaths? Concerning this fact great controversy has developed during the past few decades and though many theories have been advanced there is still no universally accepted explanation. The theories are too numerous to mention in this short paper, ranging all the way from mechanical to endocrine in type, but because one finds, at autopsy, in deaths identical in all respects to the so-called status lymphaticus, thymus glands of both normal and abnormal size and weight, the mechanical theory is not seriously considered.

Again, in older children and adults sudden death occurs from trivial causes such as sudden chills from cold baths, extraction of teeth, incisions of boils or minor surgical procedures, local or general anæsthetics, injections of serums or vaccines or drugs. At autopsy these cases usually show the so-called status lymphaticus diathesis, i.e., the yare fair, rather plump and with enlarged thymus and lymphoid hyperplasia. If past puberty, when the thymus begins to atrophy, one may find it definitely hypertrophied. In other words there are persons who apparently are very susceptible to ordinarily unimportant traumata or intoxications who die suddenly with no other more definite postmortem findings than the above. While the diagnosis of status lymphaticus may not be a scientific or unsatisfactory one, and, as Boyd states ,is very much misused at coroners' inquests, we still must be content with it until some more definite explanation is forthcoming.

A few years ago a special committee of the Medical Research Council and Pathological Society of Great Britain and Ireland was formed to study and report on this vexing problem. This committee made an exhaustive study of all available data over a long period and concluded their final report with the statement that their studies "afford no evidence that so called status thymicolymphaticus has any existence as a pathological entity." Nevertheless, I presume we shall go on classifying these cases of sudden death under this heading until such time as the true picture is unveiled.

There has been nothing new offered in this short presentation and it was intended only to refresh your memories as to the more common causes of sudden death.

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JOSEPH JEROME ALPHONSE LABRECQUE

Obiit Feb. 18, 1942

In the passing of Dr. Labrecque, at the age of 71, a little-known but rather unique personality was lost to the medical profession of Vancouver. Dr. Labrecque lived mainly in his office, and one rarely saw him elsewhere. He came to Vancouver twenty-one years ago, from years spent in St. Agafit, Quebec, and Prince Albert, Saskatchewan, and confined his practice here to the eye, ear, nose and throat. Few men knew him by sight, but he was a competent practitioner, and a friendly wight.

* * * *

WILLIAM WESLEY BRIDE

Obiit March 26, 1942

Dr. Bride was born in 1865, and practised almost till the day of his death—a goodly record of medical practice. Of late years, he had not been very active but he had been in B. C. since 1908, and counted many friends, lay and professional.

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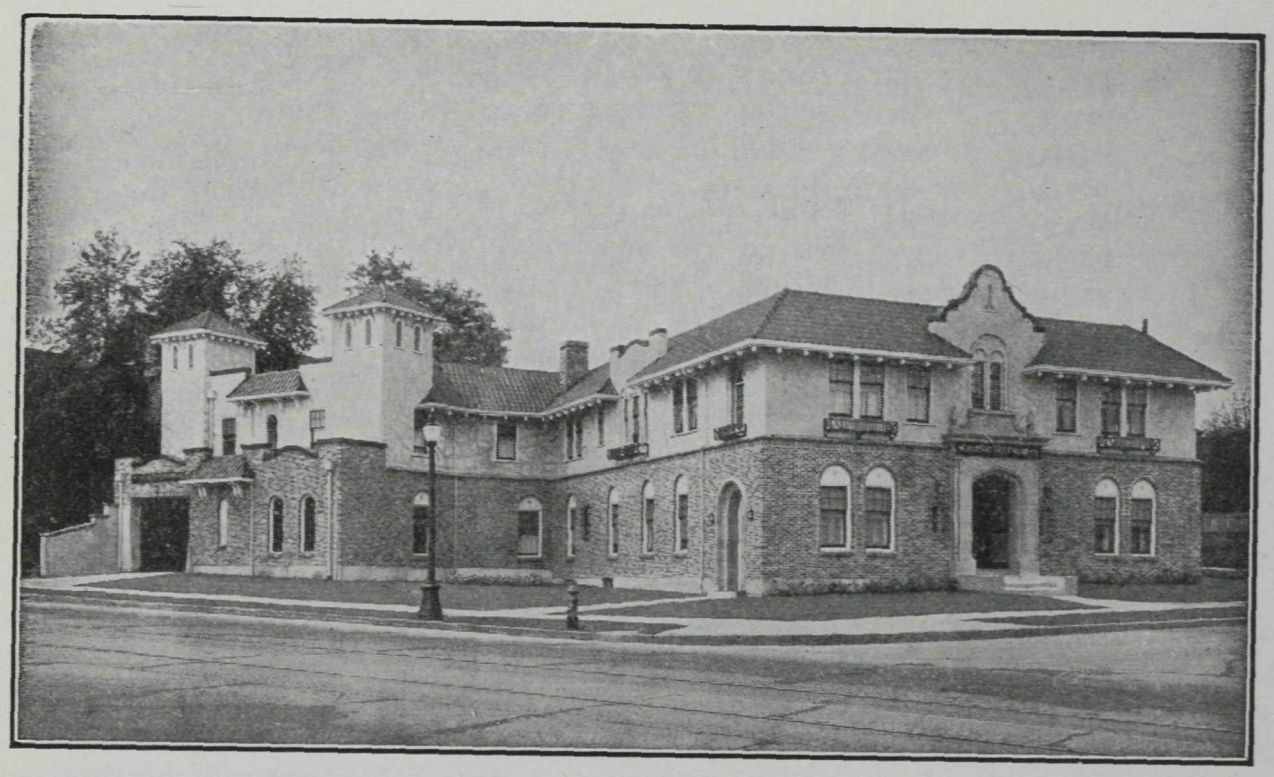

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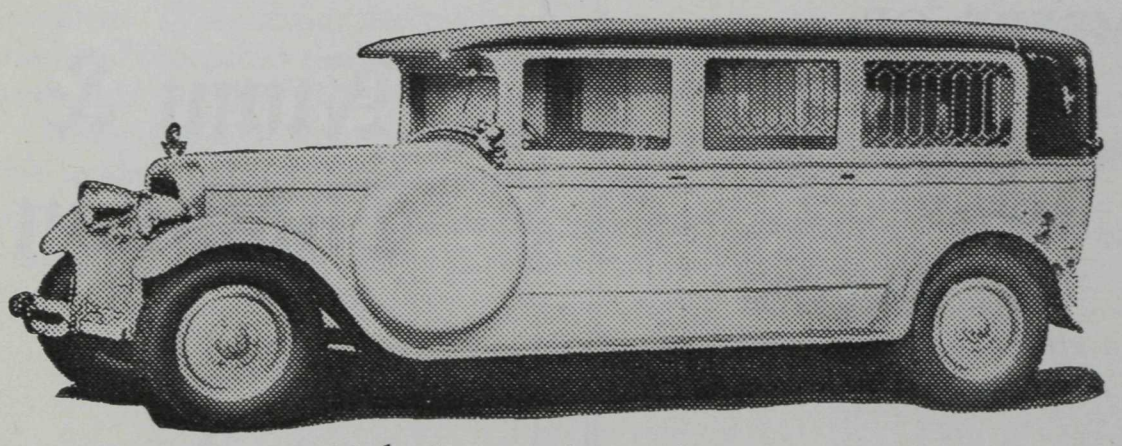

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