1939 ANNUAL MEETING PROGRAM

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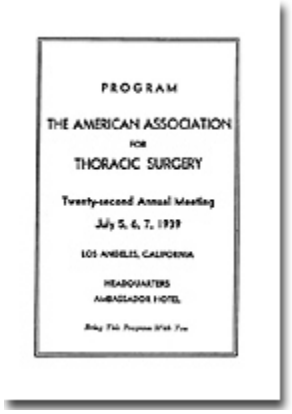
PROGRAM

THE AMERICAN ASSOCIATION FOR THORACIC SURGERY

Twenty-second Annual Meeting

July 5, 6, 7, 1939

LOS ANGELES, CALIFORNIA

HEADQUARTERS AMBASSADOR HOTEL

WEDNESDAY MORNING, JULY 5, 1939

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Wednesday Morning, July 5, 1939

9:00 a. m. Business Session.

9:30 a. m. Scientific Session.

1. Benign Chondroma of the Chest Wall.

FRED R. HARPER, Denver, Colorado.

Abst. The paper includes a review of the literature with particular reference to the tendency of chondromata to undergo sarcomatous degeneration.

The case reported is that of a girl aged seventeen years. The roentgenograms were typical of benign chondroma of the chest wall. The tumor was completely removed through an anterolateral incision which proved to be cosmetically superior to the usual approach directly over the tumor. The patient has been carefully followed for more than a year with no evidence of recurrence.

2. Primary Tumors of the Ribs.

ROBERT M. JANES, Toronto, Canada.

Abst. If one may judge from experience in this centre primary tumors of ribs are quite rare. This group of 8 cases comprises all that have been operated on over a period of 15 years and is made up of 1 giant-celled tumor, 2 apparently single myelomas, 2 chondromas, 2 osteogenic sarcomas and 1 chondrosarcoma. A method of repair of the defect resulting from removal of

an anterior chest wall tumor is described.

3. Pectus Excavatum.

A. LINCOLN BROWN, San Francisco (*by invitation).*

Abst. On the basis of our experience with 5 operative cases of tricherbrust, the following conclusions are reached:

1. That in fully developed (adult) conditions, removal of the depressed sternum alone may not effect a permanent relief of symptoms.
2. That since the depression develops gradually over a period of years, simple surgical intervention in infancy may prevent the further development of the anomaly.

Our clinical experience and anatomical studies have shown that, 1. the condition is hereditary, 2. it is brought about by overactivity of the diaphragm, 3. when the sternum is released there still remains a contracted depressed substernal ligament with its attached periosteum, therefore unless this ligament is also freed, the condition and symptoms dependent thereupon, are likely to persist or recur, 4. in the growing child, the further development of the condition may be prevented, by simple section of the anterior attachments of the diaphragm to the gladiolus, and of the substernal ligaments at the level of the junction of the zyphoid and gladiolus thereby releasing a majority of the unusual depressing force.

4. Primary Tumors of the Diaphragm.

JOSEPH W. GALE and *(by invitation)* STANLEY R. EDWARDS, Madison, Wisconsin.

Abst. There have been numerous reports in which the diaphragm has been secondarily invaded by tumors arising in neighboring structures. The occurrence of primary tumor of the diaphragm is extremely rare, however, and only eleven cases have been reported. Seven were malignant and four were benign. Four cases have been operated upon. The signs and symptoms are not typical but certain diagnostic procedures, including the use of x-ray with artificial pneumothorax and pneumoperitoneum, will render invaluable assistance in arriving at a correct diagnosis. These will be discussed along with a report of the successful removal of a primary malignant tumor of the right hemidiaphragm in a patient who has

remained free from recurrence for nine months.

5. Removal of Teratoma from Anterior Mediastinum.

(Moving picture demonstration)

STUART W. HARRINGTON, Rochester, Minnesota.

Wednesday Afternoon, July 5, 1939

2:00 p. m.

6. Address by Dr. Clarence Crafoord, Stockholm, Sweden, on Pulmonary Ventilation and Anesthesia in Major Chest Surgery.

7. Differential Pressure and Reduced Lung Function in Intrathoracic Operations.

W. E. ADAMS, Chicago, Illinois.

Abst. Methods of administration of anaesthesia as well as anaesthetic agents used in intrathoracic surgery have become increasingly significant concomitant with the development of that branch of surgery. The scope and utility of differential pressures during surgical pneumothorax are enumerated and discussed. Experimental and clinical evidence is presented describing the hazards associated with some methods of obtaining and maintaining differential pressures. Experimental work concerning lowered vital capacity and its importance in differential pressures during intrathoracic operations is presented and its clinical application is discussed. Our experience with various methods of administration of anaesthesia in surgical pneumothorax is presented.

8. Further Studies on Survival Following the Maintenance of Life During Experimental Occlusion of the Pulmonary Artery.

JOHN H. GIBBON, JR., Philadelphia, Pennsylvania.

Abst. Attempts to carry out surgical procedures within the cardiac chambers or great vessels at the base of the heart have not been attended as yet with much success. It is obvious that any operative procedure upon the heart could be better performed if that organ were temporarily relieved of its function of pumping blood. If the flow of blood

through the heart and lungs could be safely stopped for thirty minutes, then it is conceivable that a new field of cardiac surgery might be developed.

A method is described by which life can be maintained in animals when the flow of blood through the heart and lungs is completely stopped by clamping the pulmonary artery. The method consists of the continuous withdrawal of blood from a peripheral vein, the introduction of oxygen into the blood, and the continuous return of the oxygenated blood to the animal's arterial system through a peripheral artery.

The difference between this method and those used for the perfusion of isolated organs lies in the added technical difficulties entailed in the use of small peripheral vessels for the perfusion. The vessels must be of such small size that their ligation does not result in any impairment of nutrition or function of the tissues supplied by them. The use of such peripheral vessels permits the animal's heart and lungs to again resume their normal functions after removal of the clamp from the pulmonary artery and the cessation of the extra-corporeal circulation.

Thirteen experiments are reported in which this method was employed. In these experiments the pulmonary artery was completely occluded for from 10 to 25 minutes, during which time life was maintained by an extra-corporeal circulation. Five animals lived 24 to 48 hours after the experiment. Four animals lived from 8 to 23 days after the experiment. Finally, four animals lived from one to 11 months after periods of occlusion of the pulmonary artery of from 12 to 20 minutes. These four animals were normal in every respect and exhibited no neurological changes.

Control experiments, performed under identical conditions with the exception that the extra-corporeal circulation was not used, have demonstrated irreparable neurological changes with periods of occlusion of the pulmonary artery of five minutes or longer, and have also shown the impossibility of restoring life after a 10 minute period of occlusion of the pulmonary artery. So far as we are aware, this constitutes the first report of the successful temporary substitution of an entirely mechanical apparatus for the functions

of the heart and lungs of an animal, followed by the prolonged survival of the animal. It is hoped that the method may be perfected eventually to such an extent that it may be safely employed on human beings.

9. Hemicardiac Hypertrophy and Enlargement Solely Due to Increased Peripheral Resistance: A Study of Pulmonic and Aortic Stenosis Experimentally Produced.

EMILE HOLMAN, San Francisco, California.

Abst. Small puppies ranging in age from ten days to six weeks were operated upon, the aorta and pulmonary artery being partially ligated just beyond the heart. The development of the heart was followed both by x-rays and necropsy studies, comparing the experimental animals and their hearts with litter mates as controls. Some interesting observations have been made on the dilatation and hypertrophy that occurs under these circumstances, compared with the dilatation that occurs in the presence of an arteriovenous fistula.

10. Factors Affecting the Regeneration of the Lung.

ROY COHN, San Francisco, California *(by invitation).*

Abst. It has been demonstrated by Addis et al that organ weight is to a large extent a factor of organ work. Studies were made upon the remaining lung tissue following removal of from one to four of the five lobes in the rat. As a control, the lungs of 372 rats of various body weights up to 350 grams were plotted against their respective body weights. The resulting straight line was used as the basis for predicting lung weights from a given body weight in the rat.

It was found that except in the old rats the original weight was restored by the remaining lung tissue within a period of two weeks. The old rats did not equal the preoperative lung weight even in thirty days whereas the young rats had restored the total lung weight to normal in as little as seven days.

The change in weight of the remaining lung tissue depended upon the size of the remaining thoracic cage. If the size of the space which the remaining lung tissue had to fill was decreased, as by phrenic avulsion, thoracoplasty, placing wax in the thorax at the time of operation, then the remaining lung tissue did not approximate the predicted weight. If the size of the thoracic cage was increased by placing the rats in an atmosphere comparable

to a very high altitude, the lung weights were as much as forty per cent higher than the predicted weights.

The heart weights increased in all cases after thirty days, again as much as forty per cent.

When large doses of thyroxin were administered, the usual increase in weights of the heart, liver, and kidneys was noted. An irregular increase in weight in the lungs on the basis of the body weight prediction was found to disappear when the correction was made for loss of body weight from the thyroxin.

Histological material and x-ray studies were made but gave no proof of the cause of the increase in weight of the remaining lung.

An approximate method for counting the alveoli was devised. With this method no increase of the number of alveoli could be demonstrated even in the lobes that had increased as much as three times their original weight.

Further studies including in vivo staining of the lung before pneumonectomy, as well as changes in the hemoglobin of the blood are in process of completion.

THURSDAY MORNING, JULY 6, 1939

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Thursday Morning, July 6, 1939

9:00 a. m. Scientific Session.

11. A Selective Type of Thoracoplastic Operation.

WILLIAM A. HUDSON, Detroit, Michigan.

Abst. Since 1933 a type of thoracoplasty has been used which is characterized by anterior resection of the greater parts of the first two ribs freeing of the pleural attachments along the anterior mediastinum and vertebral gutter at the first stage, and a posterior resection at the subsequent stage or stages.

12. The End Results in Approximately 500 Thoracoplasty Patients.

E. J. O'BRIEN, Detroit, Michigan.

13. Extrafascial Air as an Adjunct to Thoracoplasty with Extrafascial Apicolysis.

T. B. AYCOCK and *(by invitation)* OTTO C. BRANTIGAN

and HUGH WELCH, Baltimore, Maryland.

Abst. In our hands extensive rib resection was not sufficient to close many large cavities or to afford adequate rest to many cases of diseased lung tissue. Following the employment of the "Semb Procedure" we were greatly encouraged with the immediate results but somewhat disappointed with finding months later that the regeneration of ribs had taken place convexly at a higher level than earlier plates gave promise. To offset this we began to introduce air into the extrapleural space in sufficient amount to hold the periosteum, extrapleural fascia and lung down in its position of first collapse, until rib regeneration took place in a concave manner. We feel that in a very few instances the necessity for a second operation is avoided, and in many instances the second operation may be delayed for an indefinite period without fear of regeneration interfering with the second stage collapse.

14. Planography (Body Section Radiography) as Applied Especially to Pulmonary Disease.

WARREN C. BREIDENBACH, Dayton, Ohio *(by invitation).*

Abst. Brief historical review and outline of principles involved with description of types of apparatus used. There will be a presentation of illustrative cases and evaluation of the procedure from the standpoint of the internist.

15. Four Years Experience with Extrapleural Pneumo-Oleothorax.

OSCAR S. PROCTOR, Seattle, Washington.

Abst. A summary of the principles of the procedure is given together with a discussion of the indications, technic, dangers, normal course, complications, and results based on an experience of four years with some thirty cases.

Thursday Afternoon, July 6, 1939

1:00 p. m. Executive Session.

2:00 p. m. Presidential Address.

HAROLD BRUNN, San Francisco, California.

Two Interesting Benign Lung Tumors of Contradictory Histopathology. Remarks on the Necessity for Maintaining the Lung Tumor Registry.

FRIDAY MORNING, JULY 7, 1939

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Friday Morning, July 7, 1939

9:00 a. m. Scientific Session.

16. A Comparative Report on Infection of Thoracoplasty Wounds: Experience with the Ultra-Violet Irradiation of Operating Room Air.

RICHARD H. OVERHOLT and *(by invitation)*
REEVE H. BETTS, Boston, Massachusetts.

Abst. The report is based on the study of two large series of thoracoplasty cases in one of which ultra-violet irradiation of the operating room air was used. In this group with irradiated air the incidence of wound infection was found to be definitely lower than in the control group.

17. Polypoid Bronchial Tumors.

H. BRODIE STEPHENS and *(by invitation)*
ALFRED GOLDMAN, San Francisco, California.

Abst. This paper is a general consideration of polypoid bronchial tumors; an attempt to classify according to their life history, growth potentialities and histological characteristics those tumors which project into bronchi visible through the bronchoscope.

In particular, bronchial adenomata are distinguished on the one hand from metastasizing carcinomatous polypoid tumors; on the other from benign polypoid tumors endowed with the least growth potentialities, namely, fibromata, papillomata, lipomata, ecchondromata, etc.

Difficulties in making diagnoses, both clinical and histological, are described. The clinical management of bronchial adenomata is presented together with clinical and pathological evidence supporting our views. Indications for Sronchoscopic removal, lobectomy and pneumonectomy are based upon these findings in seventeen previously unreported cases from the University of California and San Francisco Hospital Thoracic Surgical Services. The histories of these seventeen patients illustrate the interesting manifestations and various treatments of the disease.

18. The Diagnosis and Surgical Therapy of Patent Ductus Arteriosus.

JOHN C. JONES, F. S. DOLLEY and *(by invitation)*
LEWIS T. BULLOCK, Los Angeles, California.

Abst. A detailed discussion of the diagnosis of ductus arteriosus will be presented, along with pulse pressure tracings and electrocardiographic studies. The surgical technique of ligation of the patent ductus arteriosus will be discussed, and a series of cases recently operated upon will likewise be presented.

19. Operation for Development of Collateral Circula-lation to the Heart.

PETER HEINBECKER and *(by invitation)*
WESLEY A. BARTON, St. Louis, Missouri.

Abst. The report describes an experimental study in dogs of an operative procedure for the development of collateral circulation to the myocardium. It consists of the production of a sterile adhesive pericarditis by the use of aleuronat plus 1/2 of 1 per cent sodium morrhuate or, carborundum dust plus 1/2 of 1 per cent sodium morrhuate. The two pericardial surfaces are first desensitized by the injection into the pericardial cavity of a small amount of 2 per cent novocaine. The materials used to produce the pericarditis are inserted into the pericardial cavity through a small opening in its anterior surface. The opening is then closed and the parietal pericardium is sewed to the retrosternal tissues. Observations made at periods from 3 weeks to 16 weeks after the operation demonstrate that it results in a rich collateral circulation to the myocardium derived chiefly from the branches of the internal mammary arteries. The procedure is considered applicable to human cases of myocardial ischaemia resulting from a variety of well known causes.

20. Dorsal Sympathetic Ganglionectomy for Intractable Asthma.

DUANE CARR, Memphis, Tennessee.

Abst. The control of otherwise intractable asthma has been attempted surgically by various types of attack upon the autonomic nervous system. Levin contends that by interrupting *either* the afferent or efferent fibers of the reflex arc the spasm of the bronchi and bronchioles may be eliminated. Three cases are reported in which a bilateral resection of the third and fourth dorsal sympathetic ganglia was performed, two of them more than two years ago. The favorable results in these two cases lend weight to the assertions of Levin and others.

The apparent failure in the third and more recent case suggests that the "trigger" area is not always in the bronchial mucosa.

The slightly modified operation described gives ready access to the sympathetic ganglia by the extrapleural approach, a clear view of all connecting fibers, and has been performed with local anesthesia without shock or respiratory embarrassment.

Friday Afternoon, July 7, 1939

2:00 p. m. Scientific Session.

21. Large Infected Pulmonary Cysts Simulating Empyema.

HERMAN C. MAIER, New York, New York.
CAMERON HAIGHT, Ann Arbor, Michigan.

Abst. Although cystic disease of the lung is now being recognized with greatly increased frequency, large infected solitary pulmonary cysts are frequently incorrectly diagnosed both clinically and roentgenologically. The large infected cysts are often treated as encapsulated empyemas. The true nature of the lesion is sometimes not recognized at the time of drainage of the purulent contents, and only after the cavity persists in spite of adequate drainage may suspicion be aroused that one is dealing with a pulmonary cyst.

Three cases with large infected solitary pulmonary cysts are presented. The cases illustrate various points in differential diagnosis and therapy. Features of the pathology of pulmonary cysts which influence treatment are considered. After drainage of the purulent contents of the cyst, two of the three cases herewith reported were treated successfully by lobectomy and the third case by enucleation of the cyst wall. The indications for radical surgery are discussed.

22. Acute Putrid Abscess of the Lung.

HAROLD NEUHOF and ARTHUR TOUROFF,
New York, New York.

Abst. A survey of more than eighty-four cases of acute putrid lung abscess which have been operated upon is given with reference to operative indications, operative pathology, the one stage operation, and the results of operation. The results will be considered from the viewpoint of mortality (three deaths in eighty-four cases), morbidity, immediate results and end results.

23. Joint Manifestations Associated with Lung Tumors.

WILLARD VAN HAZEL, Chicago, Illinois.

Abst. Clubbing of the fingers is common in suppurative diseases of the chest. However, arthritic changes sometimes accompany the presence of intrathoracic tumors. These manifestations have been seen to be the initial symptom on several occasions. In two instances complete disappearance of symptoms followed a pneumonectomy for bronchiogenic carcinoma, in one case, and the removal of a large intrathoracic fibroma in the other.

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Proctor, Oscar S..... Medical-Dental Bldg., Seattle, Wash.
Randolph, V. S..... 15 E. Monroe St., Phoenix, Ariz.
Riggins, H. McLeod..... 140 E. 54th St., New York, N. Y.
Ringer, Paul H..... Arcade Bldg., Asheville, N. C.
Samson, Paul C..... 411 30th St., Oakland, Calif.
Schaffner, Vernon D..... Kentville, Nova Scotia
Shipman, Sidney..... 490 Post St., San Francisco, Calif.
Simpson, H. Murray..... 327 Queen's Ave., London, Ontario, Canada
Skinner, A. M..... Homer Folks Tuberculosis Hospital, Oneonta, N. Y.
Skinner, George F..... 36 Coburg St., St. John, N. B.
Steele, J. D..... 324 E. Wisconsin Ave., Milwaukee, Wis.
Stephens, H. Brodie..... 384 Post St., San Francisco, Calif.
Stewart, Archibald..... Westmont, P. Q., Canada
Strieder, John..... 171 Bay State Road, Boston, Mass.
Thorburn, Grant..... 105 E. 53rd St., New York, N. Y.
Touroff, Arthur S. W..... 940 Park Ave., New York, N. Y.
Tuttle, William M..... 305 Professional Bldg., 10 Peterboro St., Detroit, Mich.
Tyson, M. Dawson..... Hanover, N. H.
Urquhart, Robert Glen..... Uncas-on-Thames, Norwich, Conn.
Viclal, J. A..... 454 Sherbrooke St., E., Montreal, Canada
Williams, Mark H..... 110 Murray St., Binghamton, N. Y.

SENIOR MEMBERS

Auchincloss, Hugh..... Presbyterian Hospital Medical Center, New York, N. Y.
Bazin, A. T..... 1414 Drummond St., Montreal, Canada
Branower, William..... 285 Central Park West, New York, N. Y.
Byers, J. Roddick..... 3166 Westmount Blvd., Montreal, Canada
Clerf, Louis H..... 1530 Locust St., Philadelphia, Pa.
Crowe, Samuel J..... Johns Hopkins Hospital, Baltimore, Md.
Davison, T. C..... 478 Peachtree St., N. E., Atlanta, Ga.
Diederich, Victor..... 236 Central Ave., Hot Springs, Ark.
Dovell, Chauncey D., Maj. M. C., U. S. A.Station Hospital, Fort Banks, Winthrop, Mass.
Dunham, H., Kennon..... 27th Floor, Union Central Life Bldg., Cincinnati, Ohio
Einhorn, Max..... 20 E. 63rd St., New York, N. Y.
Ferguson, R. G..... Fort San, Saskatchewan, Canada
Fischer, Herman..... 35 E. 84th St., New York, N. Y.
George, Conrad..... 117 E. Liberty St., Ann Arbor, Mich.
Keller, William L., Col. M. C., U. S. A..... Walter Reed Hospital, Washington, D. C.
Kernan, John D..... 103 E. 78th St., New York, N. Y.
Lemon, Willis S..... 510 Tenth Ave., S. W., Rochester, Minn.
Lewald, Leon T..... 1200 Fifth Ave., New York, N. Y.
Lord, Frederick T..... 305 Beacon St., Boston, Mass.
McSweeney, E. S..... 103 E. 35th St., New York, N. Y.
Maes, Urban..... 1671 Octavia St., New Orleans, La.
Manges, Morris..... 1185 Park Ave., New York, N. Y.
Matson, Ralph C..... 1004 Stevens Bldg., Portland, Ore.
Miller, Robert, Jr..... Powder Point, Duxbury, Mass.
Muller, George P..... 1930 Spruce St., Philadelphia, Pa.
Peterson, Edward W..... 525 Park Ave., New York, N. Y.
Pool, Eugene H..... 107 E. 60th St., New York, N. Y.
Robinson, Samuel..... 22 W. Micheltorena St., Santa Barbara, Calif.
Stewart, George A..... 3301 N. Charles St., Baltimore, Md.
Stewart, William H..... Lenox Hill Hospital, New York, N. Y.
Watson, Everett E..... Mt. Regis Sanatorium, Salem, Va.
Whipple, Allen O..... 180 Fort Washington Ave., New York, N. Y.
Whittemore, Wyman..... 199 Beacon St., Boston, Mass.
Wilensky, Abraham O..... 12 E. 87th St., New York, N. Y.

MEMBERS DECEASED

from April, 1938, to July, 1939

Coryllos, Pol N..... New York, N. Y.
Kenyon, James..... New York, N. Y.

Torek, Franz.. Montclair, N. J.
Yates, John L.. Milwaukee, Wis.