

The Tenth Annual Meeting of the AMERICAN ASSOCIATION OF THE HISTORY OF MEDICINE

HOTEL CARTER, CLEVELAND, OHIO

MONDAY, JUNE 11, 1934

In honor of SIGMUND FREUD, M.D., and KARL KOLLER, M.D. through whose imaginations and genius the world received, in 1884, that great benefaction, local anesthesia.

Their blessed gift of pain prevention and the alleviation of suffering made every physician of every land their grateful debtor. They justly rank with those other medical immortals, Humphry Davy, Henry Hill Hickman, Crawford W. Long, Horace Wells, W. T. G. Morton and James Young Simpson, who did so much to bring about the "Death of Pain."

1884 — LOCAL ANESTHESIA — 1934

CENTRALBLATT
FÜR DIE GESAMTE
THERAPIE.
II. JAHRGANG 1884.
Ueber Coca.
Von Dr. Sigm. Freud.
Erschienen im k. k. Allgemeinen Krankenhaus in Wien.

g. Oertliche Anwendung der Coca. Die Eigenschaft des Cocaine und seiner Salze, Haut und Schleimhaut, mit welchem als in concentrirter Lösung in Berührung kommen, zu anästhetisieren, ladet zu gelegentlicher Verwendung insbesondere bei Schleimhautaffectionen ein. Nach Collin* ruhmst Ch. Fauvel das Cocain in der Behandlung der Pharyngitis und besonders so als "Le tenseur par excellence des cordes vocales". Anwendungen, die auf der anästhetisirenden Eigenschaft des Cocaine beruhen, dürften sich wohl noch mehrere ergeben.

*T. G. Med. 1884.
* De la coca et de ses variétés préparées thérapeutiques. L'union médicale, 1877.

LOCAL application of Coca. The anesthetizing action of cocaine and of its salts, skin and mucous membrane, upon whatever they come in contact with in concentrated solution, invites a convenient use of them, especially in mucous membrane affections. Following Collin, Charles Fauvel commends the use of cocaine in the treatment of pharyngeal disorders and notes it as "Le tenseur par excellence des cordes vocales." Uses which depend upon the anesthetizing property of cocaine may well be still further shown.

1884. Wiener Medicinische Wochenschrift No. 42.
Ueber die Verwendung des Cocain zur Anästhesirung am Auge.
Von Dr. Karl KOLLER, Schacharzt des k. k. Allgemeinen Krankenhauses in Wien.*

Wenn man einige Tropfen einer wässrigen Lösung von Cocainum muricatum¹⁾ über die Cornea eines Menschen, Kanarienvogels oder Hundes fallen lässt, oder auch die Lösung auf die übliche Weise in den Bindehautsack eintrüffelt, so zuckert das Thier eine kurze Zeit, mit dem Augenlidern, offenbar in Folge eines schwachen Reizes; nach 1/2—1 Minute öffnet das Thier das Auge wieder, das allmählig einen eigenthümlichen Ausdruck von Starheit annimmt. Berührt man nun die Cornea des Thieres mit einem Stachelmehl²⁾ (welch man sich, um Tierversuchen zu entgehen, vor Berührung der Wimperhaare zu löten hat) so erfolgt kein reflectorischer Lidchluss, der Bulbus wölbt nicht aus, der Kopf wird nicht zurückgezogen, wie es sonst wohl geschehen würde, das Thier blinzt vielmehr ganz ruhig, und bei Anwendung stärkerer Reize thörst es, dass sich das Cornea und Conjunctiva vollkommen anästhetisch sind.

IF A few drops of an aqueous solution of cocaine hydrochloride are allowed to trickle over the cornea of a guinea-pig, rabbit, or dog, or if the solution is instilled into the conjunctival sac, the animal will blink the eyelids for a short time. After one minute the eye is opened again and gradually assumes a staring expression. If the cornea is now touched with the head of a pin, no lid-closure reflex occurs: the eyeball does not turn away, the head is not drawn back, the animal keeps perfectly still. If stronger stimuli are applied, one can see that the cornea and conjunctivae are completely anesthetized.

THE AMERICAN ASSOCIATION
OF THE HISTORY OF MEDICINE



Program

HOTEL CARTER, CLEVELAND, OHIO

JUNE 11, 1934. SESSIONS AT 3 AND 7 P. M.

- DR. JAMES B. HERRICK, The President: "Introductory Remarks"
- DR. VICTOR ROBINSON: "Karl Koller and Local Anesthesia"
- DR. RICHMOND C. HOLCOMB: "Ruiz Diaz de Isla, and the American Origin of Syphilis"
- DR. JOSEPH L. MILLER: "The Experimental Methods of Claude Bernard"
- DR. PAUL G. MOORE: "Blindness in Certain Historic Characters"
- DR. EDWARD B. KRUMBHAAR: "William Hunter of Newport"
- DR. HENRY R. VIETS: "James Thacher (1764-1844) and His Influence on American Medicine"
- DR. WILLIAM S. MIDDLETON: "Samuel Jackson"
- DR. HARLOW BROOKS: "The Circumcision Ceremony of the Walukui People" (Lantern Slides)
- DR. C. S. BUTLER: "The Importance of the Chancre in the History of Medicine" (To be read by title)

DINNER SESSION, HOTEL CARTER, 7 P. M.

- DR. OTTO GLASSER: "Roentgen's Ideals As Reflected in His Letters"
- DR. LOGAN CLENDENING: "Laryngological Causes of the Great War"
- DR. WILLIAM GERRY MORGAN: "Shakespeare's Knowledge of Medicine"

Exhibits

DR. WALTER C. ALVAREZ

Letters of William Jenner and Benjamin Waterhouse

DR. P. BROOKE BLAND

A collection of early and rare medical classics

DR. JUDSON DALAND

- (1) A healed trephined Inca skull, also revealing a healed fracture in the occipital region
- (2) A hardened copper stellate ax and club head
- (3) Copper surgical knife
- (4) An example of an Obsidian knife from Northern Iraq (*Circa* 3500 B.C.)

DR. HOWARD DITTRICK

Ex votos, limestone, terra cotta, silver, ivory, wood carvings, pottery

DR. RUSSELL L. HADEN

The development of methods for the determination of the size, number and hemoglobin content of the red blood cells

DR. EDWARD B. KRUMBHAAR

- (1) Guy Patin's copy of "Hippocratis Coi Aphorismi"
- (2) A copy of Leeuwenhoek's simple microscope
- (3) An early form of adjustable microscope
- (4) An old style urinal
- (5) A feeding spoon
- (6) A portable apothecary scales and weights
- (7) Babylon clay tablet (*Circa* 2000 B.C.)
- (8) Theobald Smith's manuscript letter

Historical Data

Erythroxyton Coca plants were cultivated by the natives of Peru and other South American countries in prehistoric ages. It was known as "The Divine Plant of the Incas."

The plant was extensively used by them medicinally and was also used as a local anesthetic.

The active principle was first isolated, in 1855, by Gardeka, and named erythroxyline.

Albert Nieman isolated the same alkaloid in Frederick Wöhler's laboratory, in 1858, and designated it cocaine.

A study of the physiological action of cocaine was made by Anrep, Collin, Fauvel, and others previous to 1884.

In 1884 Sigmund Freud suggested to Karl Koller, an intern at the Allgemeine Krankenhaus, in Vienna, that cocaine might prove a local anesthetic.

Koller's experiments proved, beyond a doubt, the drug's usefulness as a local anesthetic and the results were published in 1884.

Anton Wölfler, Theodore Billroth's assistant, was the first to use cocaine subcutaneously in 1884.

Howard Kelly introduced it into gynecological practice in 1884.

William S. Hallsted, in 1885, introduced the drug into use in general surgery.

James L. Corning, of New York City, was the first to use cocaine as a spinal anesthetic, in 1885.

Carl Ludwig Schleich introduced infiltration anesthesia in 1894.

Merling introduced eucaine in 1896.

Conduction anesthesia, widely used by George W. Crile (1897-1900).

Rudolph Matas and August Bier adopted spinal anesthesia in 1899.

Harvey Cushing used conduction anesthesia in 1900.

Novocaine anesthesia introduced, in 1905, by Alfred Einhorn.

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