cellulitis of scalp and bronchitis, lasting, according to mother's history, three or four days. Incision revealed pus between aponeurosis and periosteum. Child improved for few days and then stopped improving. Jan. 12, 1905, edges of wound were ulcerated and bare bone was seen and discharge was increasing. Culture showed mixed diphtheria and staphylococci. Antitoxin was given, but paralysis of the right eye and legs occurred, which eventually cleared up. The scalp wound healed slowly and grew diphtheria bacilli up to April 18, and the wound healed May 23. Throat was negative throughout.

CASE II. Ten months' child, admitted Aug. 16, 1905, with indurated inflammatory swelling in hypogastric region down to upper part of right labium majora and groin without ulceration of skin. Child was toxic. Throat negative. Aug. 20, several incisions let out only a little pus. Vagina negative. Culture showed diphtheria, but antitoxin was given too late, and child died.

Wound diphtheria is rare, but should be thought of, as early treatment is essential. Only these two cases in hospital for ten years.

III. "Diphtheria in Surgical Practice." Edward Evans, M.D. Wisconsin Med. Jour., 1909-10, viii, 637.

CASE I. M. K., eleven, had radical operation for chronic osteomyelitis of tibia, Dec. 16, 1908, and progressed favorably until Jan. 5, 1909, when pain and swelling occurred and temperature went up. Until Jan. 18 ran a septic temperature. Jan. 10, edges of wound looked peculiar, with fibrinous deposits. Jan. 15, diphtheria bacilli discovered. Antitoxin until Jan. 28, twenty-five thousand (25,000) units in all. Discharged Feb. 22, with wound free from diphtheria apparently, although a case developed at home soon after her arrival.

CASE II. C. C., thirteen, had incision and drainage of abscess of soft parts over upper end of femur, Dec. 15, 1908, and progressed favorably until Jan. 9, 1909, when she had a child and began to run an irregular temperature until Jan. 27, at times up to 105°. Jan. 19, given 5,000 units antitoxin, as culture showed diphtheria bacilli in the then suspicious looking membrane about the wound. Feb. 13, discharged with wound closing rapidly after large doses of antitoxin had been given.

Etiology.—Both cases in same room in hospital. Dresser was health officer of city. Cultures from his throat showed luxuriant growth of diphtheria bacilli, and he was treated accordingly. Another case of severe burn several weeks before entrance, came in for skin grafts Nov. 11, 1908. He was grafted Nov. 24, and again Dec. 11. The grafts were unsuccessful, membrane appeared, was not recognized, and boy ran a septic temperature and died Jan. 5, 1909. Another believes this to have been unrecognized diphtheria.

IV. "Prophylaxis of Post-Operative Diphtheria." Harry A. Barnes, M.D. BOSTON MED. AND SURG. JOUR., 1907, clvi, 705; 712.

"Klebs-Löffler bacillus may be present in the nose or throat of from 1% to 3% of average healthy individuals."

"The bacilli are usually not virulent and have little or no clinical significance."

"In contacts, direct or indirect, they may be found in a much larger percentage of cases, and are likely to prove virulent."

Routine cultures before nose and throat operations not necessary. Suspicious signs or symptoms or history of recent sore throats in the family or neighborhood should put operator on guard.

V. "A Case of Wound Diphtheria." Randal Herley,

L.R.C.P. and S. Edin., L.F.P.S. Glasgow. Lancet, London, 1909, i, 1830.

May 21, 1907, boy eighteen years received a small incised wound on back of hand by striking it against a shovel in field. June 16, pain in left axilla, left hand swollen. June 17, examination showed sore resembling anthrax pustule with enlarged and tender axillary glands. Temperature and pulse normal. Throat normal. Swab showed typical diphtheria bacilli in large numbers. Swab from throat negative.

Treatment.—Wound scraped, pure carbolic acid applied, boric acid fomentation. Four thousand (4,000) units antitoxin. Boy well in three weeks. Source of infection not traced.

VI. "Accidental Laboratory Infection with Diphtheria Bacillus." M. L. Holm, M.D. Jour. Am. Med. Asso., 1909, lii, 698.

Author was infected by piece of glass from broken vial containing suspected diphtheritic membrane. Wound was allowed to bleed and then washed with 10% formalin and closed with collodion. Infection noted the second morning after. Wound opened and several drops of thick grayish-brown fluid escaped, which showed polymorphonuclears and some blood. Diphtheria bacilli found within the leucocytes in abundance.

Wound treated as before, and one thousand (1,000) units of antitoxin taken. Sinuses and cultures on next day were negative, and wound healed. Membrane taken on fourth day of disease from child showed pure diphtheria cultures.

VII. Hala: "Ein Fall von Eiterung mit Diphtheriebazillen befund." Wien. klin. Rundschau, 1900. Ref. N. Zentralbl. für Bakt. u. Parasitenk., Bd. 30.

VIII. Leitz: "Diphtherie bacillus in einer. Panaritium." Korrespondenzbl. F. Schweizer Ärzte, 1899.

IX. Muller, A. W. K.: "Ueber seltene Lokalisation des Diphtheriebacillus auf Haut und Schleimhaut." Deutsche med. Wochenschr., 1800, nr. 6.

X. Tavel: "Ueber Wunddiphtherie." Deutsche Zeitschr. für Chir., bd. 60.

Clinical Department.

RUPTURE OF THE UTERUS THROUGH THE POSTERIOR VAGINAL FORNIX.

BY ALFRED T. HAWES, M.D.,

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THE following case is of interest on account of a rather rare form of rupture of the uterus.

M. L., age twenty-four, primipara, was admitted to the hospital on the morning of May 15, 1911.

History.—Patient has never had any serious illness or injury, and has always been well except for a chronic universal eczema which she has had since childhood. She has been under the treatment of various physicians, and at several of the Boston hospitals, but has received only slight benefit. She has lost the hair of the head, the eyelashes, part of the eyebrows and the hair around the vulva. The body is covered with the typical lesion of eczema.

Examination.—Temperature was 99° F. Pulse, 80. Heart and lungs were normal. Urine, negative. The pelvic measurements were normal.

The baby was at full term and presented by the vertex, in the right anterior position. Fetal heart-rate was 140.

On vaginal examination, the cervix was taken up and the os would admit one finger, but was thick and

very rigid. The membranes had ruptured. The head was movable, but the occiput could be made to descend low into the pelvis.

Labor. — Patient was having pains at intervals of half an hour to an hour. Uterine contractions with the pains were at times fairly strong but, for the most part, the contractions were weak. Intermittent pains continued until afternoon.

Examination in the afternoon showed the os in the same condition as on admission. As the pains were doing no good in dilating the os, the patient was given an opiate about five o'clock P.M. and slept soundly until between nine and ten o'clock P.M. The pains then began again, became of a stronger character and came every five or ten minutes. Real labor seemed to have commenced.

At one o'clock A.M., although pains had been regular and fairly strong, vaginal examination showed no further dilatation of the os. While considering the question of operative delivery, the patient had two or three strong pains of such a bearing-down character that another vaginal examination was made. The os could not be felt and the head was found on the perineum. With two or three more pains, the baby was delivered. The baby was a male, weighing $6\frac{1}{4}$ lbs. and cried lustily as soon as born. Hemorrhage from the uterus was moderate and after a wait of fifteen minutes, the placenta was delivered.

As the os uteri had been undilated such a short time before delivery, an examination was made to determine its condition. The first thing encountered by vaginal examination was the os uteri, still the same size as before, barely admitting one finger. Back of the posterior edge of the os was a strip of bruised tissue about half an inch wide hanging down in the vagina. Back of this strip of tissue, a rent in the uterus was found extending transversely across the vaginal vault. The examining finger could reach the end of the rent on the right and on the left and it was decided that the tear did not extend outside the vagina.

On account of the size of the os, it was considered that it would be had obstetrics to make any attempt at repair at this time, as there would not be sufficient opening to provide for the escape of clots and the lochial flow.

The patient was carefully watched for any signs of excessive hemorrhage, but the bleeding was scarcely greater than at a normal delivery. There was no increase in the pulse-rate. The abdomen was examined at frequent intervals, lest the tear should have been longer than appeared. No sign of intra-abdominal trouble appeared.

Convalescence was normal in every particular and the temperature never went above 99° F. The bowels were moved on the third day without pain. On account of the eczematous condition of the breasts and nipples, the baby was not allowed to nurse, and no milk was secreted by the breasts.

Examination on the ninth day. — By vaginal examination, it was found that the bruised strip of tissue between the posterior edge of the os and the tear had sloughed, leaving simply the anterior lip. The length of the tear was somewhat shorter, but the opening still admitted two fingers. The fundus had descended and the uterus was of about normal size for the length of time after labor. On inspection through the speculum, the edges of the wound were raw and granulating and bled easily.

The patient sat up on the twelfth day and was discharged with her baby fourteen days after labor.

Examination nine weeks after labor. — The patient returned for examination. She has been feeling well, taking care of the baby and doing her housework.

She says that she has menstruated recently, the flow being normal and without pain.

Examination shows the uterus of normal size and in normal position. The anterior lip of the cervix hangs down as a short tongue. There is no cervix except this tongue. Just back of it is an opening into the uterus which admits one finger. The edges of the opening are fairly firm, but there is still some granulation tissue. The opening is somewhat longer transversely than antero-posteriorly.

The patient has experienced no pain except a slight soreness when sitting down, and feels so well that she prefers not to have any operation performed.

Remarks. — There are several interesting questions which arise in connection with this case. The question may be asked, What could be done in the way of repair? A cervix could hardly be made from the remaining tissue. If the edges of the wound will heal smoothly, the opening is probably as good as could be made by surgical operation.

Other questions arise in regard to future pregnancy. It would seem that with this opening into the uterus, pregnancy would be very likely to occur. If pregnancy does occur, with the uterus open for nine months and with the different forms of bacteria inhabiting the vagina, sepsis at the time of labor would be rather strongly probable.

And when labor occurred, would this artificial opening dilate after the manner of the os uteri (or, better than this one did) or would the tear extend up the sides of the uterus. If rigid scar tissue forms, the opening will hardly be apt to dilate easily. Cæsarean section for rigid os would have, as one contra-indication, the eczematous condition of the abdominal wall.

A difficult delivery would seem to be in store for this patient at her next confinement.

Medical Progress.

PROGRESS IN LARYNGOLOGY.

BY A. COOLIDGE, JR., M.D., AND D. C. GREENE, JR., M.D.

TRANSPLANTATION OF BONE IN CORRECTING NASAL DEFORMITIES.

THE view that transplanted bone does not grow unless taken with its periosteum is contested by Carter,¹ who has successfully transferred pieces of bone from the rib to a new locality under the skin of the nose in cases of nasal deformity.

His operation is described as follows: The nose and the right side of the chest is prepared for an aseptic operation. A transverse incision is made over the nasofrontal suture; through this the skin and subcutaneous tissue are elevated over the dorsum of the nose with a long, thin, two-edged knife, curved on the flat. Above the incision the tissues, including the periosteum, are elevated for about three eighths of an inch over the nasofrontal process. About two inches of the ninth rib at about its middle are then shelled out of its periosteum and removed. This piece is then split in its transverse diameter, the medullary