

The series of steps for the mounting of specimens which has given us the best results is as follows:

Solution 1—

Carlsbad salts	5 gm.
Liquor formaldehyd 40 per cent. dilution.....	5 c.c.
Water	95 c.c.

The length of time that the specimen remains in the fluid depends naturally on its nature and size. We have allowed specimens to fix for varying periods from eighteen hours to seven days, with good results.

Solution 2—

Alcohol	80 per cent.
---------------	--------------

As a rule a few hours is sufficient in this solution. Prolonged treatment with alcohol decolorizes the specimen.

Solution 3—

Glycerin	50 c.c.
Water	50 c.c.

In placing soft or elastic specimens directly from Solution 1 or from alcohol into pure glycerin, we have noticed a tendency for them to shrink and become distorted. If the dehydration is made more gradual after controlling the color restoration in alcohol the specimens tend to retain their form and original size with a minimum of shrinkage.

Solution 4—

Glycerin	100 per cent.
----------------	---------------

Specimens are allowed to remain in this bath until they sink, which indicates that the impregnation with glycerin is complete, after which they are ready for transfer to the final preserving oil.

Solution 5—

Russian Mineral Oil No. 2.

The displacement of the glycerin does not take long, but varies with the size of the specimen. The glycerin falls to the bottom of the jar, from which it can be pipetted off, or else the impregnation may take place in a stock jar and the specimen transferred to the permanent museum jar after the oil has replaced the glycerin.

In the preservation of our pathologic surgical specimens we have found that cysts can be fixed with the maintenance of their original form if they are aspirated and filled with the solutions as they are transferred. This is particularly true of thin-walled cysts, making this step particularly important in the transfer into the final preserving oil.

While we have not been able to restore the color to old specimens that have turned brown, their condition has been much improved by the transfer from the glycerin preservative to the oil preservative. Experiments are now under way to determine the effect of the oil preservative on the histologic picture, but it must be obvious that where good histologic sections are desired pieces should be removed from the original specimen and preserved after fixation in suitable fluids.

321 Cedar Street.

A CASE OF TRUE HERMAPHRODISM

E. M. PRINCE, M.D., BIRMINGHAM, ALA.

Patient.—A girl, aged 18, came to my office for examination, stating that she had never menstruated and that she suffered a great deal with headaches which were supposed to be due to the above cause.

Her past history was negative as to illness, except measles and whooping-cough when a child. She had been a student and had returned home from college on account of the severe headaches which were worse about every twenty-eight days.

Examination.—Patient was a healthy-looking, robust girl, refined and very intelligent. Her color was good; there was a heavy growth of hair on the head. Her voice was soft and effeminate; breasts well-developed, rather larger than ordinarily seen in a girl of her age. Her hips were typically feminine; mons veneris scantily covered with hair; labia majora normal; no enlargement of clitoris; hymen unruptured. On rectal examination no mass or uterus could be felt. A vaginal examination was then made and the vagina found to be about 2 inches deep, terminating in a blind pouch. In the

upper part of the labia majora two glands could be felt which were very freely movable, and could be pushed low down into the labia majora, or up into the canal of Nuck or inguinal canal. Her chest and blood were negative; urine contained some albumin.

A diagnosis of "no uterus" was made, with hernia of both ovaries, as she complained of the inconvenience incident to the abnormal location of the supposed ovaries. An operation was advised in which we proposed to replace these in the abdominal cavity and determine what abnormality existed.

Operation.—The abdomen was opened in the median line. The broad ligaments were seen to come together, forming a small mass which was about the size of a pecan. On the left side of this mass an ovary could be felt which was about normal in size. Lying near this ovary was what seemed to be an imperfectly formed tube. Nothing was removed from the abdominal cavity, as the family did not wish anything removed. There was no excuse for removing anything unless it was the supposed tube, which would have been interesting from a histologic standpoint. The abdomen was then closed. After much deliberation and consultation with the patient's mother we decided to remove the glands on either side of the labia majora. These were submitted to Dr. Downman, whose report is below appended.

Pathologist's Report.—Microscopic examination of sections from the "tumors" removed from the labia of a young girl shows each to be a well-developed testicle with a rudimentary epididymis.

1127 South Twelfth Street.

SPONTANEOUS TYMPANOMASTOID EXENTERATION

EMIL AMBERG, M.D., DETROIT

Mr. I. K. K. T., aged 38, gives the following history: The patient's left ear began to discharge, as nearly as he can remember, when he was about 7 years old. It received no treatment at that time so far as he knows. When he was about 14 years old he had in this ear a severe attack of earache that grew worse day by day. The mastoid appeared to be involved; there was considerable swelling behind the ear and the pain became general over the side of the head and face. The patient kept his head bent over toward the right shoulder. A local physician (in Texas) was consulted and he said an operation might be necessary, but hesitated to attempt it because of inexperience. The pain became almost unbearable until at the end of about ten or twelve days the pus burst through. The pain and swelling gradually subsided. A few weeks later a polyp was removed by this physician. He did not succeed in stopping the discharge. During the next four years the ear was treated off and on by several local physicians. Two or three more polyps were removed during that time. Occasionally the patient had severe pain. The hearing was practically destroyed so far as the right ear was concerned. The treatment consisted mostly in syringing the ear with a diluted antiseptic solution. Occasionally the boric acid treatment was tried. All forms were unsuccessful.

In 1892 the patient's physician recommended him to see a specialist in Dallas, who removed another polyp and in the course of about six months succeeded in getting the ear dry.

For the next four or five years he had no trouble at all, so far as he can remember. He thinks it was dry all that time. In Detroit, about twelve years ago, the discharge reappeared subsequent to a cold. A local specialist checked it after a few weeks' treatment. Probably once or twice a year the discharge would again occur, but always yielded rather promptly to treatment. The patient consulted me about six years ago. At no time in the last six years has there been a discharge for more than a very brief period. In the last three years there has been absolutely no discharge at all, says the patient. There never was any pain since it was treated twenty years ago.

The configuration of the destruction which we see in the patient's temporal bone corresponds practically to that created

by the surgeon during a tympanomastoid exenteration. The tympanum, aditus ad antrum, antrum and the remnants of mastoid process form one cavity. The facial ridge, the region of the horizontal semicircular canal, the medial, and posterior border of the antrum are plainly visible. The length of a line extending from the tragus backward and upward to the corner between the posterior and medial wall of the cavity is by actual measurement 1 7/16 inches.

The little inconvenience which the patient experiences, aside from his hardness of hearing (a fork is not heard by air conduction), and the comparative freedom from treatment is remarkable.

It is said that Politzer, when speaking of the temporal bone, expressed himself in the sense that death lurks on all sides of it save one. Nature has so far been very kind to my patient. It must be admitted that this unusual condition is so exceptional that it must be regarded as a curiosity and that it must not be cited in support of hesitancy concerning surgical interference in similar affections.

270 Woodward Avenue.

A CASE OF PELLAGRA IN NEW ENGLAND

DAVENPORT WHITE, M.D., NEW YORK

The following case of pellagra is the first case reported in Connecticut¹ and the second in the New England states.² It occurred in New Canaan, Conn., a town which is unusually healthy.

History.—Family history was negative save that one sister is a deaf-mute, from infancy.

The personal history is negative throughout. Patient was always considered the perfection of health.

Maize or cereals in any form were never eaten; white bread alone was her only food derived from grain. She was passionately fond of all tropical fruits. Her entire life was spent in New Canaan, and she never left it save for an outing of a day, and then within a radius of eight miles.

Menstruation began at 13 years; regular in all respects up to 15 years of age, then irregular in amount and periods for nine months, when it stopped completely. Her moral standard was above reproach.

In the spring of 1907, the patient, then a girl of 15, while attending the local school, began to suffer with lassitude, anorexia, and loss of weight. Soon there appeared a bright-red edematous condition on the backs of both hands and wrists; a few scattered vesicles were present, and a burning itching sensation was noted. No gastro-intestinal disturbance or fever symptoms.

The patient imagined herself to have been poisoned with "three-leaf ivy" (*Rhus toxicodendron*) or perhaps sunburned, and thought no more of it after the swelling had subsided and the parts had sealed. Her condition improved somewhat as summer progressed, although she lost her brilliant coloring and had not regained her normal weight of 120 pounds or her strength when she returned to school in the fall. Then her attention was called to her hands because of their dirty brown, thickened appearance, particularly noticeable on wrists and knuckles. As colder weather came these parts would often crack and bleed. There was a steady loss in weight, an ever-increasing weakness in the lower extremities, and her color faded to a pallid hue.

Finally, in the spring of 1909, she stopped school because of nervousness and physical weakness. Her disposition, from a bright cheery one, had become morose and sullen, and she spent much of her time alone. As time progressed she sank deeper into this melancholic state, and was more and more difficult to arouse. She would fly into a rage without the slightest provocation.

About the middle of June, 1911, she suddenly developed persecutory delusions and became so violent that she was removed to a hospital. After being restrained for ten days

the acute mania was superseded by a low-muttering melancholic condition. Food and medicine were refused and water alone was taken. Soon alternating attacks of diarrhea and constipation developed, which on her removal home had become continuous diarrhea; stools from six to eight daily, frothy fluid, foul-smelling, with a small amount of mucus, was the general rule. She was incontinent of urine and feces at night, and had developed a bed sore some 2½ inches in diameter.

She now complained of indefinite cramp-like pains in the abdomen, and soreness (to touch) of leg and thigh muscles. Her sleepless nights were partially relieved, but she still complained of auditory delusions when I first saw her on July 20, 1911. She could be easily aroused, talked sensibly for a short time, only to relapse into a sullen apathetic state. Repeated calling for water and indigestible fruits formed her only voluntary conversation.

Examination.—The patient was a girl, aged 19, of moderate frame, emaciated, hunched up with knees flexed on abdomen; facies, dull and apathetic; a well-marked acne vulgaris on face; saliva drooling from mouth, and a dull-gray leaden hue to complexion.

Eyes: Normal, save for beefy-red appearance of mucous membranes.

Ears: Both drum-membranes slightly thickened.

Mouth: Tongue clean, swollen with tooth indentations, slightly dry on dorsum, but having a peculiarly velvety feel. It was bright-red in color, as also the gums, roof and sides of mouth, and pharynx. The gums showed a moderate Riggs' disease.

Heart: Somewhat rapid (112); sounds clear, but having a valvular quality. No murmurs, accentuations, or enlargement.

Lungs: Negative.

Abdomen: Symmetrical, slightly distended, no rose spots; tympanitic into flanks; no localized points of tenderness, although somewhat generally tender on deep palpation. No masses and no rigidity.

Liver: Dull in fourth, flat in sixth; does not percuss large; edge not felt.

Spleen: Does not percuss large; edge not felt.

Kidneys: Lower poles just palpable; no tenderness.

Extremities: Lower: Flexed on abdomen; slightly tender on deep pressure over muscles; no contractures; Babinski, absent; ankle-clonus, absent; no discolorations or thickenings on dorsum of feet. Upper: Dorsal aspect of hands and wrists show a well-marked thickening, especially on knuckles and wrists. This is rough to the touch, of a dirty-brown color, and shows cracking, with slight serous exudation in places. No evident muscle-tenderness.

Glands: Negative throughout.

Vertebral Column: No points of tenderness, no rigidity of neck.

Bed-sore: Two and one-half inches in diameter, over sacral region.

Romberg's Sign: Absent.

Vaginal Examination: No caruncles myrtiformes; mucous membrane, beefy-red; no exudation. One-finger examination showed cervix *not* lacerated; uterus, small and retroflexed; adnexa, negative.

Sensation: Pin-point pricks, scratching, blunt objects, heat and cold, were all recognized, but delayed.

Temperature, 99.2. Pulse, 112. Respiration, 22.

Course of Disease.—From July 31 to August 6 the patient's condition underwent a decided change for the better. This was accomplished through forced fluids, high rectal saline retained enemas, and increased sleep (through opiates). The mental condition became brighter, auditory delusions subsided completely, the frequency of movements dropped to two slightly formed stools daily, the appetite improved, the urinary output increased, the bed-sore healed completely, the abdominal pain and tenderness subsided, together with gas formation and fetid stools; and there was a decided gain in weight. Suddenly, however, on Aug. 6, 1911, nausea and a distaste for food developed and three days later vomiting began for the first time. With the nausea the stools became more frequent until they became almost continuous, also mucus in

1. So far as shown by a search of the Index Medicus.

2. The first was reported in Jour. Cutan. Dis., incl. Syph., 1910, xxviii, 42.