### Empyema of the Frontal Sinus.

DR. RICHARD H. JOHNSTON'S patient was a man 30 years old, who had all the diseases incident to childhood. Since then he has been healthy until the beginning of his present illness. In January, 1904, he had what he took to be a mild case of "grip." He was weak and languid for two or three days. After this he convalesced rapidly and was soon able to attend to business. About two weeks later he was taken with a severe pain over the left eye. This pain was peculiar in that it recurred every other day at 12 o'clock noon or between the hours of 12 and 4 p. m. The duration of the pain was five or six hours. Occasionally the paroxysm would miss the alternate day, but was sure to come the third day. If the patient remained perfectly quiet on Sunday, the attack would be postponed until Monday, but if he took a walk or exercised in any way he was sure to suffer. The pain would begin in the left temporal region and gradually extend toward the middle line of the head, with the point of greatest intensity in the region of the supraorbital notch. At first sight, it would become more and more severe, until at the height of the paroxysm the patient would walk the floor in agony. It would then gradually subside and finally disappear, only to return two days later. On hearing his history, Dr. Johnston thought of a possible sinus disease. The only symptoms that could be elicited were dryness of the mucous membrane in the left nostril, and tenderness on pressure over the left eye. Empyema of the frontal sinus was diagnosed from the following points: 1. Dryness of the mucous membrane. 2. The periodicity of the pain, which is quite often seen in frontal sinus disease. 3. The fact that the pain undoubtedly followed an acute, infectious disease. 4. The tenderness on pressure of the affected as contrasted with the sound side. The cardinal symptom of accessory cavity disease, the presence of pus in the nasal fossa, was not present, although the nose was examined carefully several times. Disease of the frontal sinus had never been suggested to the patient. He at first declined operation, but later submitted to it. The frontal sinus was opened and pus and a degeneration mucous membrane was found. This was carefully curetted out and the walls examined for necrosis of bone. The headaches ceased and have not returned. The case must be classed as one of closed empyema of the frontal sinus. Such cases are very rare. The fact that there was never pus in the nose and the positive declaration of the patient that he had never had a discharge of pus into the nose or into the postnasal space rendered the diagnosis difficult. The case was presented as an illustration of intermittent, periodic headache, periodic headache which could not possibly have been cured without an operation.

### Causes Contributing to Success in Cataract Extraction.

DR. SAMUEL THEOBALD, Baltimore, said that fifty years ago, when "flap extraction" was in use, the most skillful operators were well content if their failures did not exceed 12 per cent. During the two decades following the introduction of von Graefe's modified linear extraction, 8 to 10 per cent. of failures were not uncommon. Now the operator whose failures exceed 4 or 5 per cent. has little ground for self-congratulation. In a compilation of nearly 2,000 cataract extractions by well-known ophthalmic surgeons of this country and Europe, made by Dr. Frank M. Ring, in 1895, the percentage of failures was 3.67. In 192 consecutive cataract extractions performed by Dr. Theobald, including 100 reported in the *American Journal of Ophthalmology*, in December, 1899, there was a percentage of failures of but 3.12. Among the causes which have most to do with this markedly better showing are (1) the modification in the operation of cataract extraction introduced by von Graefe, (2) the discovery of local anesthesia, (3) the application of the principles of antiseptic surgery to eye operations, (4) the skilled nursing now at command, (5) the improved hospital facilities, (6) the provision against postoperation accidents afforded by such contrivances as the protection shield of the late Dr. Russell Mendoch, and (7) the more definite specialization of eye surgery. Still better results might be obtained could we guard absolutely against infection—which, in spite of careful antiseptic precautions, occurs about twice in one hundred operations—and were our patients, usually well advanced in life, in sound health, were their eyes free from complicating diseases, and were they always as tractable as the operator could wish. The intractable patient sorely taxes the patience and skill of the most expert operator.

### Improved Chemical Methods in the Clinical Laboratory.

DR. EDWARD L. WHITNEY, Baltimore, offered the following conclusions: In the use of the physical chemistry methods in pathology, we have obtained the following information of value: 1. Cardiac insufficiency can be differentiated from renal, and when existing together, both can be detected and determined. 2. The lowering of the freezing point in heart disease gives an indication for the use of oxygen by which the freezing point or osmotic tension can be restored to the normal, the cardiac activity increased, and a well-marked diuresis produced. 3. In unilateral kidney disease the freezing point of the blood furnishes information regarding the condition of the other kidney, when taken in conjunction with the symptoms, and if attention is paid to the food and time of feeding. 4. The amount of work or exercise which can be borne by an individual suffering with heart disease, and the effect of heart tonics can be fairly well estimated by a determination of the freezing point and NaCl of the urine under proper conditions, the quotient (freezing point divided by NaCl being between 1.23 and 1.69. 5. Provided a normal diet with the normal amount of fluid is given, a fall in the freezing point below 0.90 degrees, with a low valence number, indicates disturbance of the renal function. 6. In the regulation of the diet in nephritis care should be taken to give foods yielding as small a number of molecules for kidney elimination as possible. 7. With certain reserve we may be able to determine, with a reasonable degree of accuracy, the relative proportion of interstitial and parenchymatous changes by the manner in which water is eliminated and its effects on the freezing point.

## *Therapeutics*

**[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns.]**

### Atony of Rectum and Anal Sphincters.

The first consideration in the treatment of rectal atony, according to W. Bodenhamer in *N. Y. Med. Jour.*, is to establish a regular habit regarding a daily evacuation of the rectum. This may be aided, if necessary, by an injection of from a half to one pint of cold water at the ordinary temperature at the regular time of going to stool. Cold acts as a tonic, stimulant and astringent by exciting the sensibility and contractility of the rectum, and this procedure should be discontinued as soon as its purpose has been attained. In the more obstinate cases, the chief remedy, according to the author, is nux vomica, which may be administered alone or combined with some other drug and along with this treatment the rectal enemas containing strong astringents and tonic substances should be employed with the view of producing contraction and condensation of the relaxed muscle fibers of the rectum and making them shorter and firmer. Drastic purgatives should not be employed. Aperients are indicated, however, especially when atony of the colon is present, along with the rectal trouble. The use of aperients should be restricted to the smallest dose which will arouse normal peristaltic action and continued until a daily habit of evacuation is established. The astringent injections should not exceed in quantity five or six ounces, and before administering them the rectum should be emptied of fecal contents. The astringent enema should be given once daily, and should be retained for a few minutes if possible. The author, in some cases, has used a decoction of

galls or a strong decoction of white oak bark and alum. The following is also recommended by him:

℞. Acidi tannici .....gr. xxx 2|
Vini rubri .....℥iv 120|

M. Sig.: To be used as an injection and repeated once daily.

In cases of rectal constipation complicated with anal fissure he recommends the following as used by M. Bretonnean:

℞. Ext. rhatany .....3ii 8|
Alcoholis |
Aquæ destil., āā.....3v 20|

M. Sig.: To be used as an enema, in five or six ounces of water, and repeated once daily. For children, one-fourth this quantity should be used.

In some cases, the following pill is recommended when atony of the cecum exists with that of the rectum in order to soften the hard fecal matter and to excite peristalsis:

℞. Ext. aloes .....gr. xxx 2|
Ext. nucis vom. .....gr. xx 1|30
Ext. hyoscyami .....gr. xv 1|
Ferri sulph. .....gr. x |65
Olei caryophylli .....m. v |30

M. Ft. pil. No. xxx. Sig.: One pill daily at dinner or at bedtime.

Extract of nux vomica may be given once daily with advantage in the form of a pill, grain one-half to one (.03-.06). Inspissated ox gall is also of service in some cases. In those cases in which the rectum or rectal pouch is firmly distended by hard fecal masses, which neither purgatives nor injections will soften, mechanical means must be resorted to, by first dilating the anal sphincter, under an anesthetic if necessary; the finger and rectal curette should be used to remove these impacted masses as much as possible, and the remainder should be washed out by the astringent injections. A proper diet, claret, and active exercise in the open air, on foot, horseback or bicycle should be advised.

ATONY OF THE ANAL SPHINCTERS.

The anal sphincters are much less frequently affected than the rectum; however, both may be involved. When the sphincters are affected, the disease is much more readily detected, being external. The sphincters of the anus are more frequently affected in old age, and paralysis is then present and becomes so troublesome that it prevents exercise on foot. In such cases, the patient should evacuate his bowels at bedtime; if emptied in the morning, irritation is produced and kept up during the entire day. In hypochondriacs and in hysterical women, atony of the anal sphincters is frequently present. It may also be brought on by protracted ill health, sedentary habits, immoderate use of alcohol and tobacco or repeated dilatation of the anus by straining at evacuation in cases of chronic dysentery. In the treatment of this condition, the cold water ascending douche is a most valuable remedy in restoring lost tone to the muscles, by applying it to the anus for four or five minutes immediately after evacuation of the bowels and once or twice extra during the day. The following local application is recommended by the author as being of great service in such cases:

℞. Strych. sulph. .....gr. x |65
Ung. aquæ rosæ .....℥i 30|

M. Sig.: A small amount to be applied locally once or twice daily.

Or as a lotion the following:

℞. Ext. nucis vomicæ .....gr. viii |50
Alcoholis .....℥ii 60|
Aquæ ammoniæ .....3i 4|

M. Ft. lotio. Sig.: To be applied locally to the affected parts once or twice daily.

### Caffein Administered Hypodermically.

Caffein is recommended in the treatment of diabetes, according to *Amer. Med.*, to overcome fatigue, as it acts as a general tonic to the heart and kidneys. It is also of service in grave pneumonia of old people and in cases of adynamia. The following formulæ, after Huchard, are recommended as the best combinations given hypodermically:

℞. Sodii benzoatis .....gr. xlv 3|
Caffeinæ .....gr. xxx 2|
Aquæ destil .....3iss 6|

M. Dissolve with heat. Sig.: Ten drops hypodermically four or five times a day; or a stronger solution as follows:

℞. Sodii salicylatis .....gr. xlv 3|
Caffeinæ .....3i 4|
Aquæ .....3iss 6|

M. Dissolve by heat. Sig.: Ten drops hypodermically three or four times daily.

### Acne.

The following combinations are recommended by *Bull. Gen. de Ther.* in the treatment of acne of the face:

℞. Sulphuris precip. .....3vi 24|
Glycerini .....3v 20|
M. et adde:
Spts. camphoræ .....℥i 30|

M. Sig.: Apply with a brush to the face at night; or:

℞. Pulv. cretæ .....gr. xv 1|
Sulphuris precip. .....gr. lxxv 5|
Tinct. saponis viridis |
Liq. petrolati, āā.....3i 4|

M. Ft. unguentum. Sig.: Apply to the face and allow it to remain for from ten to fifteen minutes, remove by washing and dust the face with pulverized amylum.

### Treatment of Pneumonias.

The present treatment of pneumonia, according to L. Litchfield in *St. Louis Med. Review*, is symptomatic, with the promise of an antitoxin some time in the future. It is the author's belief, however, as against those less optimistic, that much can be done in the way of lessening the mortality by judiciously treating the symptoms as they arise. The patient should have an abundance of fresh air, without draughts, excluding all unnecessary persons from the room. He should not be weighted down with a needless amount of bedclothing, and it is best to clothe him in light woolen pajamas which unbutton in front. At the beginning of the disease the digestive tract should be thoroughly emptied by a calomel or saline purge or both. Water should be given freely, and in the delirious or unruly it should be forced, if necessary, and administered by high saline enemata or by hypodermoclysis. For the pain, if severe, codein or morphin and atropin may be used sparingly hypodermically. If the blood pressure is high with hard, full, bounding pulse, the patient may be bled or veratrum or aconite, with active catharsis and ice bags to the head and chest, may serve the same purpose. Delirious patients should be constantly watched to guard against accident. During the initial stage, especially, nourishment should be given sparingly, and, of course, should be simple and easily digested, as fermentation is liable to occur, and is a serious complication.

Elimination by the bowels and kidneys must be carefully watched. The temperature should be reduced by sponging and packs. The heart is the important organ to watch, as bruits may appear, both mitral and pulmonic, without special significance; the important thing is to note whether or not the second pulmonic sound is exaggerated, as it is a sign that the right heart is being taxed, and that strychnin is indicated. If the pulse becomes weak, irregular or intermittent, digitalis is indicated.

Alcohol is recommended by the author in the form of old whiskey or brandy, as it steadies the nervous system, stimulates the digestive system, regulates the distribution of blood and takes the place of fats and carbohydrates and can be given in large quantities without signs of intoxication. The author recommends it when the pulse approaches 120, and in sufficient quantities to keep the pulse at or below that point.

[Some authors claim that there is a definite physiologic antagonism between strychnin and alcohol. See abstract in THE JOURNAL, Dec. 17, 1904, p. 1846.—ED.]

If cyanosis appears, oxygen is indicated by inhalation, well mixed with air, for if used too concentrated, it is capable of irritating the pulmonary and bronchial tissues. Dyspnea and cyanosis are frequently cleared up under its use. If collapse threatens, hot mustard bath or hot pack, with free use of stimulants hypodermically, should be employed, and the conditions should be watched from hour to hour or minute to minute to note improvement.

For general nervousness, hot baths and hot packs are of value and poultices may sometimes be resorted to. The air

may be moistened with steam charged with benzoin or eucalyptol to add to the comfort of the patient when there is dryness of the respiratory tract.

After the crisis has passed or when the temperature has dropped in cases of delayed resolution and the patient's desire for food increases, a full nutritious diet, consisting of eggs, chops, steaks, etc., may be given as long as the pulse is good and there are no signs of pulmonary edema.

### Acute and Chronic Gastric Catarrh in Infants.

Robert Hutchison of London recommends in the treatment of acute gastric catarrh that the child be put to bed and all foods withheld until vomiting has disappeared, but during this time sips of iced water may be given in order to relieve the great thirst which is often present. If there is much vomiting there is no occasion for washing out the stomach, but in cases in which nausea alone is present lavage is indicated. The most useful drugs are calomel and bismuth. The treatment should be commenced by giving repeated doses of calomel, grain one-sixth to one-fourth (.01-.015) every two or three hours until two grains have been taken and this should be followed by bismuth in large doses, when the attack will rapidly subside.

#### CHRONIC DYSPEPSIA.

In the treatment of chronic dyspepsia the main line is dietetic and he gives the following directions for diet:

No food must be taken between the regular meals.

No sugars or sweets of any sort are to be eaten.

The child must not eat new bread, potatoes, peas or beans, turnips or carrots, pickles, pastry, jam, syrup or treacle, or cakes. The diet should consist of stale bread or dry toast, with butter or dripping, bacon, eggs, fish, meat, milk, plain milk pudding (except cornflour, arrowroot or sago) and green vegetables in small quantity; the carbohydrates are thus limited.

## *Medicolegal*

**Delusions—Privilege—Hypothetical Questions.**—The Supreme Court of California holds, in People vs. Griffith, where the defendant was charged with the crime of assault with intent to commit murder, that an instruction to the effect that, when partial insanity or insane delusion or hallucination is relied on, it must be made to appear that the crime charged was the product or offspring of such insanity, insane delusions, or hallucinations, and not the result of some sane reasoning and natural motives. It also holds that the rule as to privileged communications between a party and his physician does not apply in a criminal case. And it says that in every case where a hypothetical question is asked, based on the evidence, it is not to be presumed that the jury is so stupid as not to understand that it is addressed to the supposed acts, facts, and conditions of the defendant in the case; and the answer which the witness gives to such hypothetical question must have its weight with the jury as bearing on the defendant's individual case, or else the jury, through their ignorance and density, would be unfit to sit in any cause.

**May Testify as to Wounds Observed on Prisoner.**—The Court of Errors and Appeals of New Jersey holds, in State vs. Miller, a homicide case, that it was not erroneous to permit the physician of a jail, in which the accused was confined, to testify to wounds observed by him on the backs of the hands of the accused, although he also testified that he had the accused removed to a room in another part of the jail and divested of his clothing. It says that the observation made by the witness of the wounds on the hands, and testified to by him, was in no sense a compelling of the accused to be a witness against himself. Nor does the court desire to be understood as conceding that if the physician had rendered himself liable to an action for damages for illegally removing the clothing of a prisoner, and thereby enabling him to observe a wound on the person which had been concealed, the testimony of his observation would have been inadmissible. It says that if the wound were on the face or hand, or a part of his person exposed to common view, it would be absurd to say that testimony of what the wound presented to common observation was compelling a person, on whom the wound was, to be a witness against himself. And it thinks it equally absurd to say that the testimony of the observation of a wound in any part of the body, although obtained by a forcible removal of what concealed it, is to be rejected as produced by compelling a person to be a witness against himself. But the court says that there are cases which carry the protection of the accused under such constitutional restrictions to an extent which seems unwarranted.

**Privileged Communications and Evidence of Condition.**—The Supreme Court of Indiana says that, in the case of Haughton vs. Ætna Life Insurance Co., a physician testified over the plaintiff's objection that the insured in this case personally employed him, and that he advised professionally with said insured during three months named. Section 505, Burns' Annotated Statutes of 1901, prohibits physicians from testifying to "matter communicated to them, as such, by patients, in the course of their professional business, or advice given in such cases." Competency to testify is the rule, and incompetency is the exception. No person will be excluded from testifying, and no testimony will be rejected, unless within the inhibition of the statute. The statute in no manner attempts to prohibit a physician from testifying to the fact of his employment, and the rendition of professional service to a patient. Such facts are not secret and confidential, but may be, and usually are, known by other persons. The statute only forbids the physician from making public matter concerning his patient communicated to or learned by him, as such, through his professional relation. This rule was not violated in the testimony given by the physician referred to, and there was no error in overruling the plaintiff's objection to this evidence. Bricsenmeister vs. Knights of Pythias, 81 Mich. 525; Brown vs. Metropolitan Life Ins. Co., 65 Mich. 306; Nelson vs. Nederland Life Ins. Co., 110 Iowa, 600; Patten vs. United States L. and A. Association, 133 N. Y. 450; Sovereign Camp of Woodmen vs. Grandon (Neb.), 89 N. W. 448; Price vs. Standard Life, etc., Co. (Minn.), 95 N. W. Rep. 1118.

Again, the court says that the material point in controversy in this case was the physical condition of the insured at the time he made and signed the statements contained in the application for insurance, and his own knowledge of the same. As tending to show such facts, evidence of his physical condition shortly before and immediately after the time in question was competent. The statements in question were made by the insured in explanation of contemporary facts—to an intimate friend, while he was in bed, as explanatory of that fact; to the county superintendent, in explanation of the dismissal of his school; to a third party, in explanation of his appearance, walk, and the smell of iodoform about his person. These declarations, made in connection with the manifestly impaired condition of his health at the time, and explanatory thereof, were admissible, under the issues of the case, as tending to show knowledge of his physical condition at the time of making the alleged false and fraudulent statements. Swift vs. Massachusetts Mut. Life Ins. Co., 63 N. Y. 186; Kelsey vs. Universal Life Ins. Co., 35 Conn. 225; Averson vs. Kinnaird, 6 East, 188; Stauffer vs. Young, 39 Pa. 455.

**Powers of Health Officer—Employment of Physician.**—Section 1412 of the Revised Statutes of Wisconsin of 1898 makes it the duty of every health officer, "on the appearance of any dangerous contagious disease in the territory within the jurisdiction of the board of which he is a member, to immediately investigate all the circumstances attendant on the appearance of such disease, make a full report to such board and also to the State Board of Health; and it shall likewise be his duty at all times promptly to take such measures for the prevention, suppression and control of any such disease as may in his judgment be needful and proper, subject to the approval of the board of which he is a member." The Supreme Court of Wisconsin says, Collier vs. Town of Scott, that, under this statute, the power conferred on the health officer is to "investigate all the circumstances attendant on the appearance of such disease, make a full report to such board and also to the State Board of Health." No authority is vested in the health officer to take measures for the prevention, suppression, and control of disease except subject to the approval of the board