

fact of lowered vision in the right eye, normal vision in the left eye, a large amount of far-sighted astigmatism in both eyes, with the axes again oblique, and practically normal ocular muscle balance. As she positively refused to submit to an examination under a cycloplegic, I was obliged to content myself with prescribing on the basis of the findings of the first examination. I corrected her astigmatism, ordering the glasses for both distant and near use, and advised her return in three months. I did not see her again for eighteen months, when she reported that she had worn the glasses constantly for two or three months, then, not having had any trouble since first commencing to wear them, she had discarded them entirely. For two months before the second visit her head had commenced to trouble her again, and as the trouble seemed to be increasing, she desired me to look at her eyes again. I found practically the same amount of astigmatism, but the axes had approached the vertical a full ten degrees in both eyes.

She was recorrected and urged to wear her glasses constantly, which she has done with entire relief from her symptoms. This condition will probably be maintained until the onset of presbyopia upsets her ocular equilibrium.

This case cannot be strictly classed as being influenced by the development of presbyopia, but it is a good illustration of the symptom being dependent upon the refractive error; its relief upon the correction of the latter, and the immunity continuing for several months without the aid of the lenses; and, lastly, the appearance of the vertigo and its final subsidence upon returning to and constant use of the glasses.

I have had a number of similar cases in women, but I call your attention particularly to the histories of the two men because they not only illustrate the class, but demonstrate the theory that men are as likely to be affected as women, but that they are more prone to ignore the influence of the eyes in producing such symptoms.

In conclusion I would say that I realize that the general practitioner should not be burdened with any unnecessary facts, and I have purposely avoided speaking of anything not germane to the particular subject selected, in order that the main proposition, viz., that vertigo could and often does arise from defective ocular conditions, might not be obscured.

Clinical Department.

"CONJUGAL" OR "INFECTIOUS" DIABETES.

BY ALBERT N. BLODGETT, M.D., BOSTON.

In the Gulstonian Lectures, delivered in London during the present season (March, 1905), by Dr. W. Cecil Bosanquet (reported in "The Lancet," April 8, 1905, p. 905), the lecturer quotes Schmitz (Berliner Klinischer Wochenschrift, 1890, p. 419), as follows: "Schmitz examined the records of 4,389 diabetic patients, and found only four married couples." Bosan-

quet adds, "From this it would appear that the disease is not communicated from one individual to another. General experience hardly bears out the contention that the malady is infectious." The sequential occurrence of diabetes in husband and wife is rare, as the remarks above quoted would indicate, comprising only one married couple among a thousand individual patients, though it is only fair to say that other observers have reported a higher frequency of conjugal cases of diabetes.

I would like to add a similar incidence in the marital relation, from my own records. I do not attempt to account for the invasion of the diabetic symptoms in these two patients, except to mention the fact that they had been married about thirty years, had always occupied the same room and bed and that they had never had children. The following is simply an outline of the clinical history of these two patients:

The husband, aged about fifty-two years at the time I first saw him professionally, had been under the care of an eminent practitioner in another city, together with five of his friends, for treatment on account of diabetes. This gentleman remained under my care continuously for the subsequent sixteen years. He was robust in appearance, rather full in flesh, though not obese, quite active in attending to his business affairs, which required him to travel about the country a good deal, and he retained the same appearance during the entire course of his disease. During all these years he conscientiously followed directions in regard to diet, physical exercise, indulgence in alcoholics, exposure, etc. He remained all this time in remarkably good health, conducting his affairs in the usual manner, occasionally making visits to Europe for business or pleasure. He retired from active commercial life about five years ago, but still kept up his regimen, walking long distances, and appearing to be in the best of vigor and health. In all this time his only intercurrent affection was a painful and protracted attack of herpes zoster, affecting the region supplied by the fifth, sixth and seventh spinal nerves of the right side. There was much neuralgic pain over the course of the implicated nerves, and the efflorescence remained in an active stage with considerable localized tenderness for a period of about six months. The efflorescence ultimately healed, leaving permanent cicatrices at the seat of each lesion. During the entire period of my observation of this case glucose was always present in the urine, usually in rather large amounts, averaging probably about 1%. Quantitative examinations were made occasionally, but often the specific gravity and degree of reaction to tests were used in estimating the amount of sugar. Several different tests were employed, but the result was uniformly corroborative. The patient remained strong and active, taking outdoor exercise and retaining his interest in all his pleasures until the time of his fatal attack. He died a few months ago, in consequence of a carbuncle on the back of the neck, followed by acetonuria, coma and death.

J. E., the wife of the former patient, was first seen professionally about fifteen years ago. She was a large woman, inclining to obesity, but usually very active. She had been uniformly well and strong all her life. Married about thirty years. No confinements, no miscarriages, usual children's diseases, otherwise no sicknesses of importance. At the time of my first visit patient complained chiefly of "hot

flushings," frequent "fever turns," alternating with chilly sensations, which were a source of much annoyance, and which she associated with "change of life." To these symptoms was added later copious sweating on any slight exertion, or as the result of any nervous excitement. Examination revealed nothing abnormal in chest or abdomen, especial attention being given to the heart; no valvular or other lesion could be detected. Treatment was not followed by relief and was abandoned. Three years later she complained of breathlessness on slight exertion, particularly when out of doors, and most distressing when she was in a strong wind. To the condition described, real attacks of suffocation subsequently were added, which caused her much suffering and apprehension. After a period of some months the patient began to experience paroxysms of intense pain in the left breast and shoulder, later extending to the left arm and fingers. These attacks became gradually more frequent and more distressing, and at length prevented her from attending to her ordinary affairs in her house and obliged her to suspend all her usual outdoor activities. At this time the urine was examined, and was found to contain a large amount of glucose. The patient was much opposed to medical treatment, and would not follow advice. Under these circumstances the attacks of breathlessness and angina became more pronounced. Glucose was invariably found to the extent of one half to one per cent in the urine. No conclusion could be reached as to the previous duration of this symptom. The appetite remained good, patient did not become emaciated, but was invalided chiefly on account of the breathlessness and accompanying angina. She ultimately died two years before her husband, during a severe recurrence of spasmodic pain in the chest, extending to the shoulders and back, as well as down both arms. At no time during her illness was acetone found in the urine, though coma was present for twenty-four hours before death occurred.

Medical Progress.

REPORT ON PROGRESS IN PATHOLOGY.

BY JOSEPH H. PRATT, A.M., M.D., BOSTON.

(Concluded from No. 10, p. 279.)

THE NUMBER OF BLOOD PLATELETS IN HEALTH AND DISEASE.

HELBER³ used for preserving blood platelets a 10% solution of sodium metaphosphates as recommended by Pratt. Instead of determining the ratio of platelets to erythrocytes and calculating the number of platelets per cmm. from the known number of erythrocytes, Helber counted the plates directly by means of a Thoma-Zeiss apparatus, using a special counting chamber only 0.02 mm. deep. The ordinary counting chamber has a depth of 0.1 mm. The average number of platelets in twenty-five healthy men was 228,000 per cm.; the lowest count was 192,000, the highest 264,000; four times the number was below 200,000, and five times over 250,000. In a case of anemia due to bleeding ex utero in which the erythrocytes were reduced to two and a half millions he found the blood platelets numbered 276,000. In four cases of simple anemia there was a decided increase. The highest count was

510,000. Afanassiew, Riess and Fusari made similar observations. In two cases of pernicious anemia Helber found a diminution. In one case there were 91,000 to 108,000 platelets per cmm., in the other 177,000. In both the erythrocytes were less than two millions. Riess, von Emden and Determann likewise found a decrease in the number of platelets in pernicious anemia. In chlorosis the counts were normal or slightly increased. In a case of purpura hemorrhagica the platelets numbered at the time of the first examination only 40,000, the coagulation time was nine minutes. Later the platelets increased to 180,000 and the coagulation time fell to four minutes. This conclusively shows, in the author's opinion, that there is a relation between the number of platelets and the coagulation of the blood. In moderately advanced tuberculosis he found an increase in the platelets, amounting in one case to 420,000. In a case of subacute miliary tuberculosis complicated with sepsis the count reached 612,000 per cmm., shortly before death it sank to 180,000. In cancer of the stomach an increase was found amounting in one instance to 510,000. An increase was also noted in gangrene of the lung, spondylitis postyphosa and in multiple sclerosis complicated with cystitis and hypostasis of the lungs. Before death in chronic disease the platelets are reduced. In pneumonia the number of platelets falls during the febrile period and increases after the crisis. The same is true of typhoid fever. In erysipelas an increase was observed.

CEREBROSPINAL MENINGITIS.

Tooth⁴ presented at the recent meeting of the British Medical Association an analysis of forty-five cases of meningitis which have been under observation at the St. Bartholomew's Hospital the past year. Twenty-two of the cases were tuberculous, two pneumococcic, three streptococcic, eleven "posterior basic," and seven unclassified purulent cases. Optic neuritis is common only in the tuberculous variety. Kernig's sign, muscular spasm, retraction of the head are almost invariable in "posterior basic," less frequent in the other forms.

Horder⁵ states that in meningitis suppuration occurred most rapidly with pneumococci, less so with streptococci and meningococci. Both the pneumococcus and the meningococcus lead to the formation of an exudate in the posterior basic region.

Osler⁶ calls attention to the fact that epidemics of cerebrospinal meningitis never become pandemic, they are always limited to certain districts or cities. Cerebrospinal meningitis must be regarded as one of the most fatal diseases of early life although from 30 to 50% of the cases recovered. Meningococci have been found on the nasal mucous membrane of 9% of healthy individuals. The portal of entry is probably the sphenoidal cells rather than the ethmoidal foramina. In a series of ninety-three cases of menin-

⁴ Lancet, 1905, August 5.

⁵ *Ibid.*

⁶ *Ibid.*

³ Deutsches Archiv. für klinische Medizin, 1904, lxxxi, p. 316.