

CLINICAL FEATURES OF SO-CALLED ACUTE  
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This paper is based on fifty-one cases of pellagra occurring among the colored female insane patients at the Georgia State Sanitarium previous to Jan. 1, 1909.

The first case noted occurred in January, 1906, but was not recognized. It would appear that cases had been seen at this institution previous to that time, but it was not until the articles of Drs. Searcy and Babcock appeared that the nature of the malady was understood.

During the year 1908, 629 insane colored women were treated, of whom 40, or 6.3 per cent., suffered from pellagra. Of 176 patients admitted during the year, 9, or 5.1 per cent., showed symptoms of the disease when admitted.

The inroads of this disease makes it one of the most important with which we have to deal. During the past year, pellagra, as the cause of death among the colored women, ranked second to tuberculosis only. Since it is being more fully recognized, one may safely venture the assertion that large numbers of cases will be reported.

## ETIOLOGY

*Use of Corn as Food.*—Food products of maize form a considerable portion of the daily diet. From April 1, 1908, to Jan. 1, 1909, the corn-meal used at the institution was grown at home. At all other times it was purchased, and, to the best of our knowledge, was made from corn grown in the western states.

In one instance the patient had been suffering from dysentery for six months before symptoms of pellagra appeared. In the case of a second patient, symptoms appeared after she had suffered three months from dysentery. Both patients had been on liquid diet for the entire time and neither had been exposed to sunlight. A severe vaginitis was noted in the second case. Symptoms of pellagra appeared late in the course of a third case. The nature of the dysentery was not determined and autopsies could not be secured. It certainly does not appear that corn was the causative factor in these cases, unless the toxins are retained for long periods of time before their effect becomes apparent.

*Sunlight.*—In five instances patients had not been out of doors during a period varying from three to eight months previous to the appearance of the malady.

*Age.*—In our patients this varied from six to seventy-five years.

*Season.*—Of the 42 cases developing in the institution, 2 began in January, 1 in February, 2 in March, 2 in April, 3 in May, 3 in June, 1 in July, 4 in August, 5 in September, 10 in October, 5 in November, and 4 in December. Perhaps our cases are not sufficient in number to warrant generalization from them, but it would appear that there is a decided tendency for the disease to occur during the fall and winter months instead of in spring.

*Color and Sex.*—Without definite facts at hand it appears that pellagra is more common among colored than whites and oftener seen among women than men.

## SYMPTOMATOLOGY

Inasmuch as it is extremely difficult to obtain reliable information from insane negroes, we can not make any definite statement as to the prodromal symptoms spoken of by older writers, neither can we say what symptoms

usually appeared first. In the majority of instances, dermatitis, stomatitis and diarrhea were noted simultaneously. Vomiting occasionally occurs early, and slight elevation of temperature may be noted and indefinite abdominal pains may be complained of.

*Dermatitis.*—This is almost always symmetrical in position on extremities and frequently so on face and neck. The skin of the dorsal surface of the hands is the most frequent seat of the lesion. The whole dorsal area may be affected and the lesion sometimes extends to the elbows, where it is often well marked. The face, neck and feet not infrequently show the lesion. In two instances inflammation was noted on both breasts and a small area was noted over the umbilicus of one patient.

Contrary to the statement of several recent writers on this subject, involvement of the palmar surfaces of the hands and fingers does occur, as photographs show. Slight involvement of the plantar surface of the foot has also been seen. The dermatitis varies greatly in extent and severity. In the milder cases slight swelling and redness may be followed by desquamation without exposure of raw surfaces. In the more severe cases blebs may form within a few days of the appearance of the initial lesion. These are filled with clear serum, but may easily become infected. When the fluid is evacuated a thin gelatinous substance usually covers the exposed surface; under this material a reddish granular area is to be seen. Blebs have not been seen except on the extremities.

One must remember that more than 50 per cent. of normal adult negroes show thickening and darkening of the skin over the joints of the fingers. This may easily cause confusion. The dermatitis may recur as in chronic cases and has, in the case of one patient, been noted three times within a period of four months. When it does recur it appears very slowly and its real beginning may be difficult to determine. In the late stages comedones sometimes appear on the cheeks adjacent to the nasal folds, on the chin and may extend to the forehead, giving a somewhat characteristic appearance.

*Stomatitis.*—Stomatitis also varies in extent and severity. There is usually a reddening of the mucous membrane covering the inside of the cheek, the gums, the edges and under surface of the tongue and the floor of the mouth. This is accompanied by an increased flow of saliva. Following the inflammation a dirty whitish pellicle appears. This is most often first seen on the lower gums behind the last molar teeth. It may not extend beyond this position or it may involve any portion or all of the mucous membrane of the mouth. In one instance a small deposit behind the lower molar teeth was followed within twenty-four hours by an involvement of the whole visible mucous membrane of the mouth. Numerous ragged ulcers have been seen on the inner surfaces of the lips and cheeks and on the gums.

*Vaginitis.*—This occurred in about 12 per cent. of the patients. The inner surfaces of the labia show deposits similar to those seen in the mouth. A deposit within the vagina itself has not been noted, although the mucous membrane in several instances was of a bright red color and a leucorrhoea was present.

A condition somewhat similar to that noted in the mouth was seen in the nose of one patient.

*Diarrhea.*—This has at some time been present in every case. In two or three only was it absent in the beginning. The movements in the majority of cases do not exceed 5 or 6 daily, usually from 3 to 6. In a few cases the number of movements reaches 10 or 12 per

day, but as a whole the diarrhea is not severe. Small particles of mucus and some blood are occasionally seen in the stools. In the later stages constipation often replaces diarrhea.

**Nervous Symptoms.**—These are not constant as would appear from the descriptions of the chronic forms. Many of the cases running an acute course do not show any symptoms of spinal cord lesions. In two patients afflicted with pellagra when admitted the symptoms of involvement of the motor tracts were extremely well marked. In one the clinical picture was that of amyotrophic lateral sclerosis and death was apparently due to bulbar paralysis. In one case only were there symptoms of posterior sclerosis alone. These were confirmed by autopsy.

Just preceding death marked delirium may supervene.

A considerable general mental reduction is present in many cases. The often quoted tendency to suicide by drowning has not been noted.

Of the patients who develop the disease while in the sanitarium a few have recovered. The mental condition of these do not show any material change from their former condition.

**Blood.**—The blood of one patient presented a typical picture of pernicious anemia: hemoglobin 35 per cent., red cells 862,000, whites 9,400, polynuclear cells 59.4, small mononuclear 32.8, large mononuclear 4.8, eosinophiles 0.4, myelocytes 2.8. In counting 500 white cells, there were noted 34 normoblasts, 15 megaloblasts and 5 free nuclei. The autopsy findings corroborated the clinical picture. Exclusive of this case the blood findings are of some interest in thirteen other cases in which partial or complete examinations were made. Hemoglobin varied from 65 per cent. to 95 per cent., red cells from 2,500,000 to 5,292,000. The white cells were decreased in 2 cases, slightly increased in 4 and within normal limits in 6. In the differential counts no constant findings of interest were noted. Excluding the above-mentioned cases, nucleated reds were found in three of ten cases in which complete counts were made. One of the chief points of interest in this connection is the fact that nucleated red cells may be found comparatively early in the disease and when the hemoglobin is normal or above. A more extended study of the blood may yield some information of value.

#### MORTALITY

Six patients were removed from the institution before the termination of the disease. Of the remaining 45, 28, or 62 per cent., died; 12, or 26 per cent., have apparently recovered; 5 patients are still under treatment.

**Miner's Nystagmus and Traumatism.**—Dransart and Fameçon (*Arch. gén. de méd.*, December, 1908, No. 12, p. 749), call attention to the influence of traumatism on the development and aggravation of miner's nystagmus. They find that traumatism in general, and especially traumatism of the cranium, aggravates the nystagmus. Slight traumatisms of the eye—contusions, foreign bodies and wounds of the cornea, lesions of the conjunctiva—frequently cause an aggravation of the nystagmus or a transformation of a latent nystagmus into a visible or manifest one, and in a certain number of cases it localizes itself in the injured eye (unilateral nystagmus). They believe that at least 10 per cent. of the coal miners of the north of France suffer from a slight or latent form of nystagmus which renders their labor less productive and the miners themselves more liable to injury.

## THE VAGINAL OPERATION FOR PROLAPSE OF THE UTERUS

### GENERAL CONSIDERATIONS

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In order to provide grounds for a common understanding of the subject under discussion, I shall make some rather elementary statements.

1. The normal position of the uterus is anteverted.  
2. The external os is to be found on a line drawn from the upper border of the symphysis pubis to the lower point of the sacrum (Suppey).

3. The fundus of the uterus, in the woman standing erect, touches a horizontal line drawn across the top of the symphysis.

4. The external os rests on a line drawn across the spines of the ischium.

5. At birth the external os is on a level with the innominate line, and not until puberty is its normal level reached.

6. The entire uterus is freely movable, the only partially fixed part being the cervix.

7. The position of the uterus is maintained: (a) by its ligaments, (b) by its peritoneal covering (a congenitally low insertion of the peritoneum anteriorly and posteriorly to the uterus is etiologically to be considered in this paper), (c) by the intimate blending of this peritoneal covering with the musculature of the uterus, (d) by its vaginal walls, (e) by its vessels, (f) by the working in unison of the atmospheric and intra-abdominal pressure, (g) by its perineal support, and, then (h) (this we consider the most important of all) by its pelvic connective tissue and the pelvic fascia directly connected thereto, (i) by its nerve supply, through the lack of innervation to the musculature.

### THE SUPPORT OF THE UTERUS

In order to prove that the nerve supply plays a prominent part in the support of the uterus, we need merely refer to the numerous cases of prolapse of the uterus in cases of spina bifida of the lower lumbar and sacral spine.

If the pelvic floor had as much to do with the support of the uterus (practically all, if we consult the latest articles on that subject—Halban and Tandler), then why is it that so few old women acquire a prolapse in old age? I have not reference to those who go into old age with a partial or complete prolapse; for, surely, in these old women the perineum is atrophic.

I have carefully examined thirty-six inmates of the Old People's Home, ranging in ages from 60 to 90 years, and have found but two cases of prolapse. In one instance the prolapse had been acquired while the patient was quite young, owing probably to a goiter and severe asthmatic attacks. In the other instance, on account of the mental condition of the patient, 90 years old, I could not obtain a history.

To diverge, it may be of interest for me to state that in two of the inmates, whose ages were 81 and 90, respectively, I found a complete senile atresia of the vagina, about one and a half inches from the introitus. In one, 68 years old, I found a fibroid about the size of a man's fist. In seven women, who, among them, had given birth to forty-two children, cystoceles and rectoceles of varying degrees were found. In only two of them was the external os to be found below the spines of the ischium.