

three cigars a day. This, however, they say they can not do. They are willing to stop altogether, but are not willing to make the effort to reduce the number to two or three cigars a day, or feel that they can not do it. This I have seen frequently.

With regard to Dr. Minor's observations, I did not for a minute mean to make light of iodid of potassium. I said particularly that I used it at times in instances of headaches. I generally use it also in anginoid pains where I think I have seen it act beneficially. But I was not speaking of anginoid pains, but of patients in the early stages of hypertension where there are few subjective symptoms. I must say, however, that as time has gone by I have used less iodid of potassium as a result purely of clinical observation. I have not been in the habit of giving it in an attempt to benefit the hypertension *per se*. How it acts, I do not know.

One word more with regard to the question of prognosis. It is well in many instances to enter into some discussion of the prognosis with the patient. It is important to be able to give the patient as encouraging an idea of the prognosis as possible, and it is good to be able to call to mind and to tell the sufferer of patients who have done well. The patient does not, as a rule, ask for more; it is encouragement that he wants and hope will often lead him to adopt in his own case a happy optimism based on the encouraging experiences of others.

THE DIAGNOSIS OF PELLAGRA*

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The early recognition of this disease is a prime essential of its successful treatment. It is important, therefore, that the profession should appreciate the many obscure manifestations of deranged nervous or gastro-intestinal function, which frequently characterize pellagra for months or years before its diagnosis is clear.

It is presumed that the agitation of this subject throughout the South in the past decade has made all physicians familiar with the clinical features of classical cases. For purposes of this discussion, it is perhaps permissible to suggest a division into two classes: First, typical cases; second, atypical cases.

TYPICAL CASES

To the first division no unusual consideration need be given, but it is suggested they should include not only all those cases showing characteristic lesions of the skin

and of the nervous and the digestive systems, but also such cases as develop a preponderating symptom-complex in any of these fields, and yet present fewer and possibly somewhat less certain evidences of disorder of the other systems. One can not subscribe to the doctrine taught by several writers on the subject that we must have a symmetrical, cutaneous erythema or dermatitis, the neurasthenic-complex and manifestations of disordered digestion, as shown in glossitis, gastro-enteritis or a toxic, remitting or uncontrollable diarrhea. This tripod of compelling symptoms is all too frequently absent or delayed 'till hope is abandoned, and such unnecessary precaution for science's sake may surrender the possibility of recovery to the fetich of diagnostic impeccability.

Considering, therefore, that cases presenting a well-marked erythema on the backs of the hands or about the neck, or a dermatitis of the usual characteristics, and not traceable to unusual insolation or chemical irritation, as practically typical, even if no pronounced symptoms of nervous or digestive disturbance are present, but with indefinite ill health in addition, I would feel justified in diagnosing such a case as pellagra, because in an experience of twenty-five years I have never seen such an eruption in any other disease.

It is, however, somewhat more difficult to be confident in regard to those cases presenting a red tongue with salivation and vague intestinal unrest, or even frequent enteric discharges, as this condition may be more closely simulated by mercurial stomatitis and gastro-enteritis, though the writer has never yet seen the fetor of this condition appear in any pellagrous stomatitis, nor has he witnessed the spongy looseness or ulceration of the gums as in the former. It must be said that certain other toxic conditions are associated with intense oral symptoms at times highly confusing. Among these may be mentioned certain cases of chronic nephritis, which present, intermittently, buccal and lingual inflammation with redness and swelling and increased saliva quite similar to pellagra; but, such cases are usually intermittent or occur only in the late stages of nephritis, and are unassociated with other evidences of pellagra, and always associated with convincing proof of chronic renal disease.

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A still more difficult condition to differentiate is the transitory, somewhat symmetrical erythema of hyperthyroidism, which may present at the same time the salivary increase, the slick, red tongue and even a stubborn diarrhea, paroxysmal or constant. Commonly, however, this erythema is not symmetrical. It is more splotchy in character on the extremities and more likely to be associated with suffusion of the face, lips and thorax, and has never the symmetrical arrangement on the backs of the hands extending to the flexor surfaces and ordinarily stopping about the cuff or sleeve margin.

Other toxic conditions, as yet unidentified, may offer room for doubt occasionally. I recall a case with periodical attacks of salivation, with a slick, red tongue, and associated with a profuse diarrhea of the fermentative type, with a deep erythema upon the palms and flexor surfaces of the hands, extending up the lateral margins of the digits, with burning paresthesiae quite similar to the usual pellagrous eruption on the backs of the hands. Large numbers of yeast fungi were found in the stools of this particular patient, and a few years ago I presented her as a clinic before the Harris County Medical Society, at Houston, Tex., with a diagnosis of sprue. The case has since been widely examined throughout the United States and the diagnosis of sprue made by several of the army physicians and others, but with differing opinions in New York and Boston.

Again, a persisting or frequently recurring, slick, red tongue with salivation, with peristaltic unrest, gaseous dyspeptic symptoms, with or without diarrhea, and exhibiting mild nervous phenomena, such as restlessness, depression and insomnia, is nearly always ascribable to pellagra; and if the exceptions above noted are excluded, such a diagnosis may be made with considerable confidence, even though no cutaneous lesions are discoverable and no history of it can be elicited.

ATYPICAL CASES

If now we turn our attention to the second division, or the atypical cases, we enter upon more treacherous ground. Nevertheless, increasing knowledge of the disease warrants the tentative conviction that many, if not most, of these cases can be recognized if sufficient care is exercised to exclude other and somewhat similar

diseases. As an illustration, I believe that pellagra presents in different cases a nervous-complex distinguished by the following predominating characteristics, which are sufficient to suspect the disease if not to diagnose it confidently.

1. *The Apprehensive.*—By this is meant those individuals who exhibit an indefinite, uncertain dread about themselves or the future, and who have no real reason to assign for their unpleasant emotions or sensations. Such persons carry a furrow in the brow and feel some impending calamity, although unable to explain it intelligently. Of course, the large class of psycho-neurasthenics, who have mental unrest, may be easily excluded here, because they are voluble in assigning reasons for their depressive emotions and are even more quickly responsive to any bodily sensation. The pellagrin with apparent unfounded apprehension has a tendency to cry without adequate cause and to explain that he just can not help it, as he feels so bad or the future looks so dark. Next, the depressive psychoses may be readily eliminated, as they usually find their depression dependent upon some sin of omission or commission, and they show also great mental reduction, more unstable hereditary history, and other personal evidences of a disturbed mental equilibrium.

2. *The Confusional.*—Such cases present a gamut of mental symptoms, ranging from simple perplexity in the conduct of their affairs, particularly in the care of children or household in females, and in the affairs of business and their personal habits in males, even to a more pronounced hypodelirium in which the patient is clearly unable to attend to ordinary affairs, and often passes to a more distracted state with symptoms simulating the manic depressive-complex, but running a shorter course to recovery or to fatality.

3. *The Comatose.*—It is possible that this and perhaps the foregoing may prove merely progressive forms of the first class, but some cases without previously recognized mental perplexity or distraction pass rapidly into a comatose condition, usually showing restlessness, jactitation, and later, involuntary evacuations of bladder and bowels, muttering delirium and subsultus tendinum, or a greatly exaggerated typhoid status, with death in a few days or weeks; or even may terminate in recovery. In

certain of these cases I have observed the coma associated with intermittent appearances of the red, slick tongue, with or without salivation, and an erythema of splotchy form, and have seen such patients definitely regain consciousness and health with substantially no doubt of the diagnosis.

4. *The Delusional.*—With or without revealing striking evidences of digestive and cutaneous disorder, certain cases of pellagra become dominated by delusional concepts, usually persecutory in character, often accompanied by hallucinations of sight and of hearing of a similar terrifying nature. For example, I have observed a Mexican woman with easily identified pellagra exhibited in all its classical symptoms, but only after the inauguration of the marked mental symptoms, consisting of delusions that a former husband was concealed under the bed, was trying to cut her throat and had already murdered her daughter, her son and her mother. Distressing hallucinations of hearing and of sight increased the agitation and resulted in frantic efforts at escape. It may be added that delusions are sometimes present, but are not given voice owing to the delirium or self-absorption of the patient. I have seen similar delusional and hallucinatory concepts in the insane and in alcoholics, but never quite the combination shown in pellagrins.

I do not wish to be understood as claiming that these four classes present such clinical pictures as assure their identification, but they are present so frequently with these predominating characteristics that with meagre support from other incriminating evidences of the disease, one may be safe in making the diagnosis.

Many symptoms, isolated and unsupported, are suggestive of pellagra and may afford much strong suspicion of the disease, and with combination of two or more systems may amount to certainty. Among these I suggest:

(a) Paresthesiae, particularly the burning sensations in the feet and sometimes in the hands, and not traceable to alcoholic or other ascribable neuritis.

(b) Indefinite pains in the region of the stomach and the back, unassociated with evidences of gall stones, hyperchlorhydria, gastric or duodenal ulcer, or appendicitis, and with peristaltic unrest,

sometimes visible in those with thin abdomens and gaseous distention, and possibly attacks of diarrhoea, without any cutaneous lesion and few or no evidences in the nervous system.

(c) A strong tendency to lachrimation on slight occasion, and more or less uncontrollable.

(d) Loss of weight with any of these symptoms without other sufficient cause.

(e) A peculiar muddy pallor with an anxious look, difficult to describe, of the type of toxic pallor, not an anemia, and often associated with mental depression and muscular hypertension and exaggerated reflexes.

(f) The red, slick tongue, with or without salivation.

(g) Paraplegic symptoms, usually spastic but sometimes flaccid, though never so flaccid as in the hypotension of locomotor ataxia, of poliomyelitis or of multiple neuritis, and associated with gastro-intestinal evidences of pellagra.

Finally, it must be admitted that neither the mouth secretions, the blood, the spinal fluid, the gastric contents nor the stools have yet given any conclusive evidence of this disease. Until they, one or more, do give such evidence or some definite etiological agent is discovered, we shall be compelled to rely upon the clinical aspects of the disease for the diagnosis.

Editor's Note: Discussion of this paper follows the paper of Dr. Babcock.

TREATMENT OF PELLAGRA*

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In the words of another,¹ "I wish merely to recall here a few facts known to every Southern physician. I have not made a single discovery and my modest contribution is confined to a few elementary observations." When in our gropings to find the cause of pellagra we at least approach enlightenment, shall we not, perhaps, agree with Billod,² who declared in 1860 that "the cause of pellagra is complex and va-

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