PALAEOGENESIS AS EXPLANATORY OF CERTAIN FORMS OF DISEASE.

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IN the BRITISH MEDICAL JOURNAL of January 9th, 1909, p. 85, I ventured, in writing about the condition known as leucoderma colli, to give a novel explanation as to its nature. My suggestion was that the condition thus named is not in any sense an eruption, but simply a revelation, under disturbance of general health, of a pattern which pre-existed in the skin. I have since then given much thought to the subject, with the result not only of confirming the conclusions then arrived at, but of finding good reason to suspect that the same explanation is applicable to many other phenomena of supposed "disease."

The theory which I invoke is that, in the course of hereditary transmission, peculiarities of organization may be perpetuated for quite indefinite periods and under conditions of the most absolute latency. In order to be explicit I have invented (or borrowed, I do not know which) the terms "palaeogenesis" and "palaeogenetic." The latter is applicable to all conditions supposed to be due, wholly or in part, to inheritance from ancestry extremely remote; so much so that in the majority of cases all history of such association has been lost. The possibilities of palaeogenesis are not limited by species or genus, but may be recognized in the most distantly related animals. Thus the condition known as the "dappled" skin occurs both in deer and horses, and I now claim it for human beings. It is simply a spotted skin in which the spots become visible only under certain conditions. Although there is, of course, difference in colour between the ground and the spots upon it, the precise colour of both may vary much, and is a matter of no consequence: a dappled horse may be either brown or grey, but must be well fed and well groomed, or it will not show its dappling. It seems probable that the use of arsenic may develop it, and that the blood changes in secondary syphilis, or the drugs used against it, may be influential.

I do not propose here to offer any further exposition of my theory, for it is very complicated, and I am well aware that at first sight some of its conclusions may appear far-fetched and very improbable. My desire on the present occasion is simply to ask the attention of other observers, and to mention some of the conclusions which have suggested themselves to my mind.

Not only do I hold that we may recognize palaeogenetic structural peculiarities in the dappled skin of leucoderma colli, but a similar predisposition is to be traced in xanthelasma palpebrarum, in the common form of leucoderma, and the very curious congenital conditions which have been recognized under the names of linear ichthyosis, ichthyosis herpetiformis, or Biett's bands.*

The explanations of these in reference to cause and distribution have hitherto been insoluble problems, which have exhausted the ingenuity of many observers. To take, as an example, xanthelasma palpebrarum. I have recently found that crescentic patches, curving round the inner canthus, or on the inner third of the upper lid are common in some deer, in many dogs, in young lambs, and a host of other animals. I accept these facts as evidence that there exists in these regions portions of integument so organized that they are prone to produce hair, etc., of peculiar tint, and I deduce that it is these which under various states of disturbed health, or without any, give location to the washleather patches which Rayer drew our attention to.

Perhaps the simplest example of palaeogenesis which I can adduce is the "linea fusca," which used to be regarded as a symptom attending a first pregnancy, but which obviously is "the abdominal line" conspicuous in many quadrupeds, made visible in a woman by the pigment disturbance which

often attends pregnancy. It will be obvious that palaeogenetic influences do in a certain sense affect every fibre of our organism. We are physically as well as morally "the heirs of all the ages." I suggest, however, that it will be convenient to restrict the term to conspicuous and unexpected illustrations of a law which, often overlooked, is really of universal force.

I hope to bring the subject under discussion at the forthcoming meeting of the British Medical Association in London next July, and may state that in the meantime pictorial illustrations of the conditions referred to will be on exhibition on the ground floor of the Clinical Museum at the Polyclinic, and that I shall be thankful for suggestions and criticism.

FAECAL VOMITING DURING ANAESTHESIA: A SUGGESTED METHOD OF OBTAINING ITS DANGER.

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THE extreme difficulty of avoiding fatal consequences when a general anaesthetic is administered in cases in which intestinal obstruction exists and faecal vomiting is liable to occur has led to the adoption of many methods of inducing anaesthesia. None of these has proved wholly satisfactory. It is proposed to consider these methods, and to suggest one which, so far as the writer knows, is novel and appears to offer a chance of avoiding the dangers incident to all the plans which have been proposed up to the present time. In most cases of complete or almost complete obstruction it is extremely difficult to estimate the danger incident to general anaesthesia. Some are obviously beset with the utmost peril; vomiting is frequent and stercoraceous, and the patient is collapsed. Other patients vomit at intervals, but palliative treatment is adopted and the more grave symptoms appear to be relieved. Vomiting may cease although the abdomen is distended and operative treatment is obviously necessary. In such cases until recently a general anaesthetic was administered as a matter of course, and the selection of its nature was decided by the general state of the patient. Records of deaths under such conditions demonstrate very clearly that grave dangers arise and commonly terminate fatally, either through drowning of the patient with his vomitus or through infection of the lungs causing septic and fatal pneumonia. The Clinical Report on Anaesthetics published by the British Medical Association records three deaths under ether, and there were cases in which the faecal vomiting resulted in suffocation. It is not denied that many cases of this grave condition have been successfully operated upon under a general anaesthetic, but the point of importance is that no one can assure safety even when the greatest skill and care are invoked for the administration of the anaesthetic.

Surgeons both in this country and abroad have become convinced of the danger, and have sought to avoid it by employing local analgesia, or spinal analgesia. Local analgesia is at best an unreliable method in these cases. Even if the preliminary steps of the operation are carried through without causing serious suffering—and often this is not possible—the actual operation, the examination and manipulation of the abdominal viscera, are always associated with great pain and shock. That the gravest danger from the surgeon's point of view is shock, no one who has seen many such cases will deny. For a patient who is conscious to undergo a severe operation, even if severe pain is not felt, taxes the nerve of most persons, even when in good condition, but such an experience for one who has been seriously shocked or is collapsed involves the most grave risk of further shock or fatal collapse.

When subdural injections were introduced, it was at first claimed for the intradural analgesic method that it would prove a valuable alternative to general anaesthesia for all persons whose state appeared to contraindicate the use of general anaesthesia. It was thought that this method, even if it possessed its own dangers, would be found at least safer than older plans. Obviously cases of

* Both in the human skin and in those of animals the dappled condition may become much more conspicuous in certain seasons. The Formosan sika stag, which is a relative of the Japanese stag, is, like it, "spotted" only in summer. The whiteness of the spots and their contrast with the dark ground are far less marked than those of some other stags which, like the axis, retain their conspicuous spots all the year round. A young lady who was brought to me on account of spots on her hands and forearms showed little that I could observe. It was in January. I was assured that in summer the spots were very conspicuous and annoying.