

	Duration of Case.	Arsenic.
4	...	More than trace
5	...	None
6	... 20 days ...	Minute trace
7	...	None
8	... 1 month ...	"
9	...	"
10	...	"
11	... 2 months ...	"
12	...	"
13	...	"
14	...	"
15	...	"
16	... 3 months ...	"
17	...	"
18	... 5 months ...	More than trace
19	...	None
20	... 2 years ...	"

This result certainly augments the evidence in favour of the cases being arsenical, since it suggests that the arsenic was present only at a certain stage of the disease. But the relation may be only a coincidence.

I asked Professor Dixon Mann whether, even in undoubted cases of arsenical poisoning, arsenic is sure to be found in the hair. He replied that in very recent cases it might not have time to get there; while in old cases the arsenicated hair may be shed or cut away. Hence in a Chinaman's queue the arsenicated portion may occur some way down. Dr. Fry does not mention from what part he took his samples, and this may have much to do with the result. I suggest that samples should be taken from near the scalp, and that the duration of the case and other details be carefully inquired into. My warm thanks are due to Drs. Fry and Dalgetty for the samples, and to Professor Dixon Mann for the time and trouble he has expended on the analysis.

The chances against five of the positive cases being found in the first six cases by mere coincidence have been calculated out for me by the Calculus of Probabilities, and amount to 2,583 to 1. Hence the probability is very strong that the Penang beri-beri is arsenical, especially when we know that the people there largely work in tin manufactories and are brought closely into contact with arsenic."

The above notes are of extreme interest to all who are acquainted with the tropics, and know the gravity of beri-beri. A curious fact in relation to this disease is that Europeans rarely suffer from it, even where it is very prevalent amongst natives.

Nursing of Diseases of the Eye.

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(Continued from page 124.)

SOME GENERAL POINTS IN OPHTHALMIC HYGIENE.

In dealing with the eye, we are at once more and less favourably circumstanced than those who deal with other regions of the body. The eye is readily investigated, all its appendages are within easy reach of observation, and even its deeper parts can be examined with the greatest certainty by means of the ophthalmoscope. In no other part can we see a large nerve with none but transparent coverings; nowhere else do arteries and veins come so closely to our view. As a result of this the phenomena of inflammation have been observed with greater accuracy in the eye than in any other part of the human body.

The older writers named four cardinal symptoms of inflammation—pain, heat, redness, and swelling. When from any cause a superficial inflammation of the conjunctiva has been set up, we can find all these signs. There is pain, not perhaps severe, but still definite discomfort, redness, from the increased vascularity of the part, slight swelling, from oedema, and increased heat, though this may be so slight as to be almost imperceptible. To these four cardinal signs of inflammation, modern science has added a fifth, impairment of function; no inflamed part is capable of carrying out its duties as well as a normal one. The inflamed lid does not move comfortably over the globe, and by secreting a sticky mucus may interfere with vision.

Owing to the transparency and thinness of the conjunctiva, the injected blood-vessels are immediately visible.

The character of this injection varies with the form of inflammation, and differs whether the superficial or deep parts are affected.

Superficial (conjunctival) injection is usually of a bright scarlet colour, and made up of a large number of visible branching vessels, which anastomose freely over the eye. The conjunctiva of the fornices and lids shares in this injection, which is usually deepest at some little distance from the cornea. The vessels are quite superficial, and can be emptied by even gentle pressure, when the sclerotic can be seen, of its normal bluish-white colour, lying beneath.

When the deeper parts of the eye are affected, the external vessels which are most likely to be concerned are naturally those which pass through the sclerotic to join the internal circulation; this is what we find. The small anterior ciliary arteries, it will be remembered, come from the

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