FILARIASIS IN SAMOA.

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As a supplement to Surgeon V. Gunson Thorpe's interesting paper on filariasis in the South Sea Islands (BRITISH MEDICAL JOURNAL, October 3rd, 1896), I wish to record the result of the examination of certain blood films kindly sent to me from Samoa by Dr. Davies in 1884. The films were 56 in number and represented the evening blood of 56 adult Samoans, each of whom was affected by some form or other of elephantoid disease, either elephantiasis, or elephantoid erysipelas, or lymphangitis, or recurrent elephantoid fever. Of the 56 slides 27 contained filariæ, 29 had no filariæ. In some slides—each equivalent to about half a drop of blood—only from 1 to 10 parasites, in others from 30 to 100 were found. In not a few they were present in enormous numbers; 4 contained 161, 132, 165, and 232 filariæ respectively, and in one slide, by no means a large one, I counted no fewer than 566 filariæ.

It is evident, therefore, that filariasis is quite as common in Samoa as it is in Fiji and the Friendly Islands, if not more so. Unfortunately, Dr. Davies's slides were in a measure selected, coming entirely from that part of a filariated community least likely to show filariæ in the blood—namely, from the subjects of elephantiasis, that is of filaria-blocked lymphatics. Elsewhere I have endeavoured to show that such individuals are the least likely to have filariæ in the blood, seeing that the disease to which the parasite gives rise cuts its progeny off from the circulation. I have little doubt, therefore, in view of the enormous proportion of elephantiasis cases in Samoa, showing filariæ in the blood, that further investigation of the healthy adult population will bring out the startling fact that practically all adult Samoans harbour filaria nocturna, or are the subjects of filaria disease.

WARM BATHS IN THE TREATMENT OF MEASLES.

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SOME eight or ten years ago, being called to a child supposed to be suffering from bronchitis, the breathing being greatly affected, I ordered the usual linseed-meal poultices back and front. The result was to bring out a rash upon the poulticed parts, unequivocally showing measles, none of the ordinary premonitory symptoms of that disease, except the pulmonary trouble, having previously appeared. Seeing this I had the patient placed up to the neck in a hot bath of 90° to 100° F., or as hot as could be borne without pain, in front of a good fire, screened from all draughts, and kept there for some 6, 8, or 10 minutes. Even whilst in the water, the rash could be seen extending over the rest of the body, after removal from the bath he was roughly dried, wrapped in a warmed blanket (without bedclothing), and put into bed. The breathing gradually became easier, and in a short time he was asleep. The bath was repeated twice daily for the first two or three days; in about ten days the case was well.

It has since been my invariable practice to order a hot bath immediately the diagnosis of measles has been made, and often before, if any suspicions of the disease were aroused, though not confirmed. After the bath the patient is dried roughly and wrapped in a warmed blanket. I repeat the baths every twelve hours, or oftener in obstinate cases (sometimes as many as five and six a day), until the rash is fully developed over the entire body, and continue them twice daily until a normal temperature is re-established, and then once daily, generally in the evening, during the whole of the attendance, which I find rarely if ever extends over ten days. The course of the disease is shortened, the tendency to respiratory and renal complications lessened, if not practically removed, at the same time it is very seldom that any of the usual sequelæ supervene, if they do it is only in the very slightest possible degree.

I have now adopted this treatment for the last eight years,

in combination with isolation in a well ventilated room, having a sheet over the outside of the door sprinkled with a solution of carbolic acid in the usual way. I have generally succeeded in restricting the infection to the one case, even when the families numbered some five or six children. And of these first cases, I can unhesitatingly assert that 99 per cent. were well on the tenth or eleventh day, and if the weather favourable, out on the twelfth day.

Some mothers, or grandmothers, make great difficulties, owing, I believe, to the old superstition "that measles must not be touched with water." But whenever I have been able to ensure that my directions were thoroughly carried out, there has always been a successful termination, and I have never found any real necessity to prescribe active medicines even for relieving the cough, which gradually subsides as the case recovers.

Having recently read of the application of the milkpack in the treatment of eruptive fevers, I have in several cases added from half to a full gallon of milk to the first bath (as a modification of the milkpack treatment in which the patient has also to submit to a warm bath after the packing). I have carefully noted the effects of the two methods; namely, of hot baths with, and hot baths without milk, in cases under treatment at the same time; the results were practically identical.

Having only this year had quite an epidemic of measles in these parts, I have been able to confirm the above remarks. In every case that has come under my care, and they have been numerous, the treatment has been successful where it has been used, and this fact it is which has emboldened me to make known my experience.

I would suggest a trial of this treatment in other diseases, as scarlet fever and small-pox, in which, on account of the prompt action of the sanitary authorities, I have had no opportunity of properly testing. But, as with measles, I have no doubt that this plan of assisting Nature in the elimination of the virus would give favourable results, and not only greatly tend to lessen the mortality, but also minimise the risk of the infection or contagion spreading.

I always add a disinfectant to the bath after use.

I never allow the head of the patient to be wetted when giving the baths: the hair takes long to dry thoroughly. The chance of a chill, which is to be carefully avoided, is thus diminished.

ON THE OCCURRENCE OF ZONA BELOW THE KNEE, WITH NOTES OF TWO CASES.

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THE great rarity of recorded cases of herpes zoster occurring or extending below the knee is evident from the scant mention of the condition in the leading textbooks on diseases of the skin. Even in Kaposi's great work the subject is dismissed in a few lines. In Fox's *Atlas*, plate xxvii, the eruption does not extend below the junction of the upper with the middle third of the leg. According to Dr. Pye-Smith, Mr. Hutchinson says that it never extends below the knee, "and the only instance to the contrary is one figured by von Bärensprung in which there were a few small papules as low as the middle of the calf."¹

In an able paper in the *Journal of Pathology and Bacteriology*, February, 1893, p. 343, Dr. James Mackenzie says, "accurate reports of cases of eruption below the knee are scarce." He quotes a case described by Blake in the *Birmingham Medical Review*, the eruption being over the inner side of the leg below the middle of the calf, the inner ankle and the dorsal and plantar surfaces of the foot representing probably the area of distribution of the fifth lumbar nerve. A case described by Taylor in the *BRITISH MEDICAL JOURNAL*, July 6th, 1889, in which the eruption extended "along the course of the internal saphenous nerve from below the knee to the inner ankle." A case is mentioned by Charcot,² the herpetic vesicles being seated on "the antero-external surface of the left leg," the subse-

¹ Fagge and Pye-Smith, *Principles and Practice of Medicine*, 3rd edition, p. 938.

² *Maladies du Système Nerveux*.

quent description being vague. Moers³ figures a case in which vesicles resembling pemphigus in some places, extended from the dorsum of the foot up the outer and back part of the leg and thigh in the area probably of the first, second, and third sacral nerves. Mackenzie also quotes Thomas,⁴ who describes a case somewhat similar to that of Moers, in which the outer surface of the leg under the knee was affected, with the dorsal and plantar surfaces of the foot between the toes and over the gluteus near the middle line. In the *Medical Chronicle* of March, 1893, p. 366, Exley and Wardrop Griffith give an instance in which the disease followed an injury (twist or sprain) of the foot. The distribution of the eruption was as follows: Over the inner edge of the tendo achillis $2\frac{1}{2}$ inches from the level of the sole a couple of small vesicles were found, other groups were situated on the outer half of the dorsum and second, third, and fourth toes, over the terminal phalanges. On the sole two larger groups situated at the back part, two small groups on the inner side of the sole at the anterior limb of the arch and three small groups at and near the plantar aspect of the little toe. In this very extraordinary case the authors think the anomalous distribution points rather to injury as a cause.

In August, 1895, an unusual number of cases of herpes zoster occurred at or about the same time in my practice. The majority were examples of zona intercostalis, the attacks being severe. In two of the cases the distribution of the disease was in the left lower limb, and in both of these examples extended below the knee.

CASE I.—Mrs. C., aged 69. The disease began about July 25th, 1895, with some pain and weakness in the limb. I saw her for the first time on August 1st. The left leg was affected. There was no apparent cause for the illness. A large mass of vesicles 9 inches long by about 5 inches broad, with the long diameter of the mass directed downwards and outwards, extended from the top of the sacrum to the middle of the buttock. A few pimples passed the middle line to the right side over the upper part of the sacrum. A few scattered vesicles occurred over the back of the great trochanter. The skin of the thigh was perfectly free from spots from this to the lower third. The perineum and vulva were affected. On the back of the lower third of the thigh and upper third of the calf were very numerous vesicles running into one another and forming small bulbs with semi-purulent contents. A few scattered vesicles occurred over the front and outer aspects of the leg in the peroneal region. A well-marked group was situated at the centre of the dorsum of the foot. Finally, a small but distinct group was seated at the base of the little toe on its dorsal aspect.

CASE II.—Mrs. C., aged 76, ascribed her illness to getting a chill from walking barefooted in the morning through grass still wet with dew. Severe neuralgic pain was present in this case. The distribution of the eruption was as follows:—Over the upper part of the base of the sacrum was a mass of vesicles about 3 inches broad and extending across the middle line to the right. The centre of the mass was slightly to the left of the middle line. Another large group was placed on the outer and back part of the left buttock. A few spots occurred on the inside of the middle of the thigh. Numerous groups were seated on the front and outer side of the leg. On the inside below the ankle a few spots extended. No other vesicles occurred on the foot. The perineum and vulva were apparently not affected.

Accepting von Bärensprung's theory that the seat of the disease is in the ganglia of the posterior nerve roots, a theory which may now be said to be confirmed by *post-mortem* examinations, there seems to be no reason why zoster of the terminal branches of the lumbar and sacral plexuses below the knee should be so rare.

In the two cases which I have described the distribution of the eruption points very clearly to an affection of the ganglia of the posterior roots of the sacral nerves, the various seats of the affection corresponding to the branches of these nerves. Thus over the sacrum the cutaneous branches of the posterior primary divisions of the upper sacral nerves supply the skin, while the posterior surface of the thigh, the perineum, and posterior part of the vulva or scrotum are supplied by the

third and fourth, and the outer side and back of the leg, with the outer side of the foot by the first, second, and third sacral nerves.

A CASE OF GUMMA OF THE CILIARY REGION.¹

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THE appearance of a gumma in the ciliary body is a rarity even in ophthalmic practice. According to Berger,² only five cases had been reported up till 1892. Of these, one each was reported by Mauthner, Woinow, Arlt, Ayres, and Panas respectively. How many more cases may have been reported since then the writer is unable to state, separated as he is so far from most of the ordinary sources of bibliographical research. It may be taken for granted, however, that the affection is a rare one if one judges from the paucity and, in fact, in most cases, the absence of any reliable information on the subject, even in the latest textbooks.

Fuchs³ says of these in treating of syphilitic iritis: "In exceptional cases, however, nodules do show themselves in this late form also, and they must then be regarded as gummata (iritis gummosa). These are observed both in the iris and the ciliary body. They may attain great dimensions, break through the envelopes of the eyeball, and bring about the destruction of the eye."

All that Knies⁴ says with regard to this disease is as follows: "Larger confluent gummy tumours of the iris occasionally appear in the later stages of severe syphilis. They may fill the entire chamber, and their growth may lead to loss of the eye. These are usually associated with severe inflammatory changes in the other parts of the uvea."

The following case which I have had under observation almost since its commencement seems to me to be a typical example of the affection.

G., a Malay male, aged 30 years, contracted syphilis about two and a-half years ago. He came to me on March 25th last with the history that two months previously he had suffered from inflammation of the right eye of a nature similar to the present affection. He had been treated locally and constitutionally by a colleague, and had made a good recovery. A fortnight ago the left eye became inflamed, and this time he was much more anxious than on the previous occasion, because in the course of a week the sight had so rapidly deteriorated that he could not count fingers at 10 inches. I saw him, therefore, for the first time two weeks after the origin of the disease, and noted as follows: The left eye shows much conjunctival and ciliary injection. The cornea is hazy, and the anterior chamber is deep, and contains in its lower part a collection of puro-lymph. In the upper and inner quadrant of the chamber a yellowish red tumour is seen to project from the iritic angle, while above at a spot corresponding to the site of this growth there is a slight bulging of the ciliary region of a dark reddish purple colour. Below in the lower and outer quadrant of the iris there is a smaller and somewhat irregular tumour, which is seen to be almost hidden in puro-lymph, and in the adjacent portion of the ciliary region there is a swelling of a like nature to that already described, but much less pronounced. The tension of the globe is + 1. There is marked ciliary tenderness, and the patient complains of great pain in the eye and neighbouring portions of the head. Associated with the local condition there is considerable constitutional disturbance, foul tongue, anorexia, constipation, slight fever, and sleeplessness.

A week later the ciliary swellings were more prominent, they had in fact developed into ciliary staphylomata, and they already presented the usual bluish black colour owing to the pigment showing through the highly thinned sclera.

On April 24th, a month after I first saw him, it was noted

¹ Read at a meeting of the Malaya Branch, September 5th.

² *Les Maladies des Yeux dans leur rapports avec la Pathologie Générale*, by D. E. Berger. Paris: G. Masson, 1892.

³ *Textbook of Ophthalmology*. Authorised Translation, by A. Duane, M.D. London: H. K. Lewis, 1894.

⁴ *Relations of Diseases of the Eye to General Diseases*, edited by Henry D. Noyes, A.M., M.D. London, 1895.

³ *Deutsches Archiv der klin. Med.*, May, 1868, Tafel v.

⁴ *Archiv der Heilkunde*, 1868, ix, p. 475.