lung it would be very easy to ligature and cut off many portions of lung, if the disease were found scattered in patches.

DISEASES PROBABLY CAUSED BY FLIES.

BY SURGEON-GENERAL SIR WILLIAM MOORE,

K.C.I.E.,

Honorary Physician to the Queen.

DURING my Indian service I had to frequently comment on the necessity of protection from flies, which at some seasons of the year, especially in the interior of the country, and more particularly in the sandy districts of Western India, occur in vast numbers. So far back as 1858¹ I urged the necessity of protecting the food from flies, both before and after cooking, in barrack cookhouses. On sundry other occasions I had to draw attention to the proximity of public shambles and of public latrines, between which flies were constantly passing; also to the proximity of latrines and cookhouses; also to the manner in which food was prepared in the bazaars, where I have seen flies chopped up with the meat being made into sausages or "kofters."² On another occasion I mentioned the excessive prevalence of mange among animals in certain Indian cities, scarcely any animal being free from the disease, which I believe was as often conveyed by flies as by direct contact.³

When mentioning the necessity of protecting food from flies, I urged the probability of flies coming fresh from the evacuations of a cholera-stricken person, and so conveying the cholera poison to the articles of food they might next investigate. My impression, long held, that flies convey cholera poison receives corroboration from the researches of Sawtschenko. This observer states that the specific bacilli could be demonstrated as late as the fourth day after feeding flies with pure culture. Flies were fed on sterilised broth after bacilli had been supplied to them; preparations from these flies showed immense quantities of bacilli which had multiplied on the bodies of the flies. Cholera bacilli taken from the bowels of these flies killed guinea-pigs as quickly as the original culture. In connection with the matter it may be mentioned that cholera chiefly prevails when flies are most numerous.

If cholera may be thus spread, it is certainly probable that other diseases may be disseminated in a similar manner—Enteric fever, phthisis, anthrax, leprosy, for example; especially in a country where, outside hospitals, no care is taken as to the disposal or disinfection of excreta, or as to the disinfection and washing of soiled clothing. Flies seize every opportunity of investigating all kinds of filth. They take every opportunity of examining sores and eyes, whether healthy or diseased. Flies in the East have not far to pass from diseased evacuations, or from articles stained with such excreta, to food, cooked and uncooked. They have a less distance to go from a diseased eye to a healthy one. And they have not far to proceed from a leprosy sore, of which so many are exposed in the streets by mendicants, to some accidental sore or abrasion of the skin of a healthy person; probably of the skin of the feet, which so frequently occurs to natives. That syphilis is not frequently communicated by flies is explainable from the parts affected being less exposed.

That flies in the East cause "peenash" or maggots in the nose, both of animals and of human beings, is not doubted; also maggots in neglected wounds. It therefore appears that much greater care should be given to protection from flies. The occurrence of isolated cases of cholera and of enteric fever, also of ophthalmia, may be explained by the conveyance of the germs of these diseases by flies.

¹ The writer's *Health in the Tropics*.

² Selection from the Records of the Government of India, Foreign Department, No. 108.

³ Marwar, the Land of Death, *Indian Annals of Medical Science*, 1876.

ROYAL HOSPITAL, BELFAST.—Dr. Morrow, on his retirement after two years' service as resident medical officer, has been the recipient of an address and presentation from the nurses and resident staff of the hospital. He is about to enter upon practice in Belfast. Dr. Colville has succeeded Dr. Morrow.

THE EFFECTS OF KOCH'S TUBERCULIN COMBINED WITH SURGICAL MEASURES IN THE TREATMENT OF LUPUS.

By MALCOLM MORRIS, F.R.C.S. Ed.,

Surgeon to the Skin Department, St. Mary's Hospital.

THE exaggerated hopes to which the premature announcement of the discovery of a remedy for tuberculosis by Professor Koch gave rise were followed by so great a reaction that there is now a danger of the real therapeutic virtue of the remedy being lost sight of in the disappointment caused by its failure as a specific. It cannot be denied that the disappointment seemed at first to be fully justified by the fact that after Koch's method had been applied in strict accordance with his own directions, the last state of the patient was in too many cases worse than the first. It appears to me, however, that in absolutely condemning tuberculin as useless, or worse than useless, we do not take sufficiently into account the generally unsatisfactory nature of the results of other methods of treatment in cases of tuberculous disease, and notably in cases of lupus.

After having practically dismissed tuberculin from my mind as a possible remedy for lupus in view of its apparent failure to produce any permanent effect, I have since seen reason to modify my opinion to some extent. In following the after-course of cases in which it had been tried, I have been struck by the fact that they were decidedly more amenable to surgical treatment than they had ever been before. Although the tuberculin itself was powerless to cure the disease, the intense inflammatory reaction stirred up by the injections seemed to have modified the morbid process in such a way that although recurrence took place in all the cases under my observation, when the fresh growth had been effectually dealt with by local treatment, the tendency to recurrence seems to be kept in check for a considerable time, if not definitively abolished. In illustration of this result of Koch's method I subjoin the following brief notes of two cases under my own care.

CASE I.—This was one of the earliest cases treated by Professor Bergmann at the time of the great rush to Berlin in November, 1890. The case was fully reported by Dr. Pringle and myself in the *BRITISH MEDICAL JOURNAL* of January 10th, 1891, p. 72. The patient was a man at that time aged 22, suffering from typical lupus of the nose, palate, and gums; the disease had been repeatedly scraped and cauterised, and masses of caseous glands had been removed on several occasions. The improvement immediately following Koch's treatment was very remarkable, but within a few weeks of the patient's return to England the disease showed signs of renewed activity. In February, 1891, the patient went to sea. When he returned in the following May the disease had made such progress that a most extensive removal of lupus tissue

with extirpation of several glands was necessary. In February, 1893, some small isolated nodules of lupus were removed; there was no enlargement of glands. In April, 1893, the

patient's condition was as follows: On the right side of the face there were three small isolated patches containing pus. On the left side there was one small subcutaneous abscess, but only minute traces of lupus. On the upper gum and on the hard palate there was still well-marked lupus, in spite of two operations with the cautery. On the whole, however, the man's condition has been far better since May, 1891—when his disease was surgically treated after his return from sea—than after any previous operations of a similar kind, showing that Koch's treatment had had a decided influence for good.

CASE II.—This patient, a woman now aged 33, had suffered from lupus of the nose and neck for some years before coming under my care (in March, 1890). The disease was scraped and cauterised on many occasions during some eight or nine years with variable but always temporary improvement. In January, 1891, Koch's treatment was begun and continued for four months. After the last of the injections the cautery was freely applied. Since then the disease has remained almost

completely in abeyance; there has been no further formation of nodules, and, in the patient's own words, "the only sign of the disease has been a slight break in the outer skin now and then." The only treatment required during the last two years has been an occasional touch of lunar caustic.

Very similar results have been obtained in several other cases. My sole object in publishing these cases is to call attention to a point which I believe to be at the present time in some danger of being overlooked, and it would be interesting to know if my experience in this respect can be confirmed by that of others. I venture to think that it is time that the after-histories of the cases of lupus in which Koch's treatment was tried at the end of 1890 and the beginning of 1891, and especially of those cases in which local treatment was applied after the injections of tuberculin, should be brought before the profession.

Koch's method therefore appears to me to be of real value in the treatment of lupus as a preliminary to local treatment by the ordinary methods. The cases, however, must be carefully selected for the purpose. I consider the injections altogether unjustifiable when lupus is complicated by tuberculosis of the lungs or other internal organs.

THE ANTARCTIC EXPEDITION.—The Antarctic Expedition, consisting of four Dundee whalers, which sailed last September has just returned from a voyage which was most successful as a commercial venture owing to the large number of seals obtained. The medical officers of the ships undertook to make such scientific observations as might be possible, and it is understood that many valuable observations on the meteorology, geology, and natural history of the Antarctic regions have thus been obtained. The description given by one of them in the *Times* shows that the duties of the doctors were of the most multifarious description, and the writer describes how while the ship's crew were away killing seals the captain sat in the crow's nest from early morning till late in the evening, the two engineers relieved one another at the engines, the cook or the steward was on the look-out on deck or on the bridge, and the doctor was at the helm.

THREE CASES OF "HYPERTROPHIC PULMONARY OSTEO-ARTHROPATHY," WITH REMARKS.

By WILLIAM THORBURN, F.R.C.S.,
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[With Four Illustrations.]

HISTORICAL SUMMARY.

SINCE Marie described his two classical cases of acromegaly in 1886, a number of examples of this disease have been recorded, and its general characters are now well recognised. The same observer, however, subsequently¹ differentiated, under the name of "hypertrophic pulmonary osteoarthropathy (ostéo-arthropathie hypertrophique d'origine pneumique)," a class of cases which had been previously confused with acromegaly, but which present certain well-defined and distinctive features. No case of this nature has as yet been recognised by English writers, and the only description of the affection in the English language is to be found in the New Sydenham Society's translation of Souza-Leite's essay on acromegaly; but Marie and his colleagues have already reported nine cases, and have collected eighteen other records of what they regard as examples of hypertrophic pulmonary osteoarthropathy, although these were otherwise classified by their original observers. Whether all of the latter cases should really be included in the new group is perhaps open to some doubt; but their individual consideration would be tedious, and we may provisionally accept the material thus provided by the French writers, and especially by Lefebvre, whose essay² contains a complete account of the subject up to the date of its publication.

The existing literature of the subject is not extensive, and it may conveniently be divided into three groups:

I. Records of cases recognised as hypertrophic pulmonary osteoarthropathy by Marie,³ Spillmann and Haushalter,⁴ Rauzier,⁵ Lefebvre (four cases),⁶ Orrillard,⁷ and Gillet.⁸

II. Records of cases variously described by their original observers, but subsequently classified as hypertrophic pulmonary osteoarthropathy by the French school: Bailly,⁹ Friedreich and Erb (two cases),¹⁰ Saundby,¹¹ Elliott,¹² Fraentzel,¹³ Sollier,¹⁴ Ewald,¹⁵ Waldo,¹⁶ Moussous,¹⁷ Gerhardt,¹⁸ and Bamberger (seven cases).¹⁹

III. Finally, we have the following papers, which discuss the subject more or less fully without adding any fresh material in the form of cases, namely, Souza-Leite,²⁰ Thibierge,²¹ and Orrillard.²²

To the twenty-seven cases thus referred to I am now able to add three, making a total of thirty examples from which we may draw our deductions as to the nature of the disease.

DIAGNOSIS.

The clinical characters of hypertrophic pulmonary osteoarthropathy, as described by the French writers, are in many respects similar to those of acromegaly; but they present, nevertheless, important and sufficiently obvious differences. In the former disease the hands and feet are always greatly and symmetrically enlarged, the increase in size involving also the lower fourths or thirds of the forearms and legs, implicating the bones more than the soft parts, and affecting markedly the terminal phalanges, over which the expanded nails are spread out with a transverse and longitudinal curve, so as to be very convex. The nails themselves are very large, and, bending over the ends of the fingers, give these a great

¹ *Revue de Médecine*, 1890, p. 1.

² *Thèse de Paris*, 1891.

³ *Loc. cit.*

⁴ *Revue de Médecine*, 1890, p. 361.

⁵ *Ibid.*, 1891, p. 30.

⁶ *Loc. cit.*

⁷ *Revue de Médecine*, 1892, p. 231.

⁸ *Annales de la Polyclinique de Paris*, March, 1892.

⁹ *Comptes Rend. de la Soc. de Biol.*, 1862.

¹⁰ *Deutsches Archiv f. klin. Med.*, 1888.

¹¹ *Illustrated Med. News*, March 2nd, 1889.

¹² *Lancet*, 1888, vol. i, p. 170.

¹³ *Deutsche med. Wochenschrift*, August 9th, 1888.

¹⁴ *France Médicale*, 1889, Nos. 68 and 69.

¹⁵ *Berliner klin. Wochenschrift*, March, 1889.

¹⁶ *BRITISH MEDICAL JOURNAL*, 1890, vol. i, p. 662.

¹⁷ *Journ. de Méd. de Bordeaux*, October, 1890.

¹⁸ *Berliner klin. Wochenschrift*, December 15th, 1890.

¹⁹ *Zeitschrift f. klin. Medizin*, 1891, vol. xviii, p. 197.

²⁰ *Thèse de Paris*, 1890, translated into English by the New Syd. Soc.

²¹ *Gazette Hebdomadaire*, 1890, p. 231.

²² *Gazette des Hôpitaux*, 1892, p. 685.