TABLE III.—*Statistics of Eyes Affected.*

	Lepra Tuberosa.			Lepra Anaesthetica.			Both Forms Added.
	M.	F.	Total	M.	F.	Total	
Of the patients seen altogether in 1901 and 1904, namely	31	22	53	15	12	27	80
The eyes had been affected in	31	21	52	8	9	17	69
The eyes had not been affected in	—	1	1	7	3	10	11
The adnexa had been affected in	31	22	53	9	11	20	73
The adnexa had not been affected in	—	—	—	6	1	7	7

TABLE IV.—*Showing Progress of the Ophthalmic Manifestations of the Disease from 1901 to 1904.*

	Lepra Tuberosa.			Lepra Anaesthetica.			Both Forms Added.
	M.	F.	Total	M.	F.	Total	
Of the patients affected in 1901, namely	11	7	18	11	10	21	39
The disease had made progress in 1904 in	11	7	18	8	10	18	36
There was no change in 1904 in	—	—	—	3*	—	3*	3*

*Two boys of 13 and 15 years of age respectively had remained unaffected. The third patient, 20 years old, had run away, "home," shortly before my arrival in 1904, but was reported not to have been affected as regards his eyes.

missing, latter otherwise thin. Sensibility normal. Conjunctiva of R. lower lid very anaemic; R. episclera shows beginning yellow infiltration downwards; in L. eye also upwards. Cornea, R. and L., in upper quadrant thin white spots and fine white patches. Fundus normal.

August, 1904. Muscles of forehead perfect. Nodules in upper lids increased, especially R. Outer parts of eyebrows overhanging. For the last three months L. acute iritis. Ocular conjunctiva very red, with pericorneal injection. Cornea fairly clear; iris dull, atrophic; pupil contracted, forms a triangular spot which is closed completely by exudation. Vision of L. eye nil. R. eye: both palpebral conjunctivae rather yellow; upper part of cornea occupied by whitish infiltration, lower half clear. Iris fairly normal; pupil forms a vertical oval. Vision good. L. iridectomy advised.

Case 95.—S. S., Male, 41. *Lepra Anaesthetica.*

July, 1901. Frontal muscles normal, hair also with exception of lashes of lower lids. Sensation normal. Slight conjunctival catarrh in both eyes, otherwise normal. When looking towards the right, horizontal nystagmus occurs. R. pupil reacts well to light, L. not so well. R. fundus normal, L. disc somewhat neuritic in appearance. Strong hypermetropia. Convex glasses ordered.

August, 1904. Sensitiveness normal; everything else normal except slight conjunctivitis. Lower lids puffy; in extreme lateral direction of eyes nystagmus appears R. and L. Hypermetropia R. and L. + 6.

Case 96.—K. G., Male, 18. *Lepra Tuberosa.*

July, 1901. Frontal muscles acting, though patient cannot well control the innervation. Skin of forehead covered with numerous small purple nodules. Lanugo there very fine and scanty. Skin of eyebrows likewise studded with the purple nodules. In the middle of the L. a crust. Supercilia mostly fallen out, those remaining very fine. Margins of all eyelids normal. Skin of upper lid R., outward, shows beginning of thickening; L. to a smaller degree. L. lower lid has a long purple nodule to the outer side of the middle. Sensation normal. Both lower palpebral conjunctivae hyperaemic, no catarrh. Episclera in lower part of both eyes, thin, yellow infiltration; to a lesser degree in the upper part. Cornea, iris, fundus, etc., normal.

August, 1904. Face dark bluish bronze in colour. Eyebrows, forehead, nose, lips and chin covered with nodules, also centre of both upper lids. Ocular conjunctiva yellow and pale. Episcleral leproma R. and L. now in horizontal meridian, increased as compared with before. Vision good. Cornea, etc., normal.

AN INVESTIGATION OF THE MECHANISM OF CONDYLOTOMY FOR THE CURE OF GENU VALGUM (REEVES'S OPERATION).

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THIS investigation was carried on by means of taking a series of x-ray photographs in a case of knock-knee requiring the operation on both knees. The patient was treated by Mr. Swan in the Orthopaedic Hospital, Dublin.* I am indebted to Mr. Swan for the opportunity of assisting him at the operation, and of subsequently examining the patient.

The skiagrams, one of which (Fig. 3) is reproduced here, illustrate some facts which may be of interest in the treatment of knock-knee.

To facilitate the description of the results obtained Figs. 1 and 2 were constructed by photographing a paper model, which was itself obtained as a tracing of the bones in a skiagram of the left limb before operation. In order to render the model illustrative of the operation, the paper tracing was divided into two pieces along the line of displacement which occurs in the operation, as shown by the skiagrams. One piece, cut out in thin paper, and appearing shaded, represents the diaphysis of the femur less that portion which is separated by the osteotome. The second piece, appearing light in the figure, represents the lower epiphysis of the femur, the resected portion of the diaphysis, and the bones of the leg.

The path of the osteotome through the lower and inner portion of the diaphysis towards the intercondylic notch lies between A B above and A' B' below in Fig. 1; the two

Fig. 1.—Diagram showing the path of the osteotome through the diaphysis of the femur, between A B and A' B'.

lines being, before displacement occurs, of necessity in apposition with one another.

Fig. 2 illustrates the position of the parts after the operation is complete. If the outline of the inner border of the femur be traced downwards, the point marked A in Fig. 2 will be found situated about the centre of the

* A description of the operation will be found in the *Transactions of the Academy of Medicine of Ireland*, 1885, vol. 3, p. 183, in a paper entitled "Condylotomy by the Osteotome for the Treatment of Knock-Knee." By R. L. Swan, F.R.C.S., Surgeon to the Orthopaedic Hospital. In this paper Mr. Swan reports on 129 knees successfully treated by this operation.

resected portion of the diaphysis. Approximately at right angles to this outline the line A B is seen in Fig. 2 and indistinctly in Fig. 3. The inner portion of the line A' B'

Fig. 2.—Diagram showing the position of the parts when the operation is complete.

stands out in both the model and the photographs. In the skiagrams the continuation of this line is seen as an irregular shadow through the shaft of the femur. In the original of Fig. 3 the new internal lower end of the diaphysis appears exactly as if it were received into a depression of the resected portion of the diaphysis.

Fig. 3.—Skiagram of the right knee nineteen days after operation. (Taken with the plate behind the limb.)

The study of the evidence presented by the skiagrams and illustrated diagrammatically in Fig. 2, shows us that the alterations brought about by the operation are somewhat as follows:

1. The inferior epiphysis of the femur retains its relation to the resected portion of the diaphysis, and the two together may be described as the lower fragment in a complete fracture.

2. The lower fragment is dislocated inwards, causing the diaphysis to project outwards beyond the external condyle. (Vide Fig. 3.)

3. The lower fragment is also rotated upwards and inwards round an antero-posterior axis passing through the epiphysal line in the neighbourhood of the intercondylic notch. This displacement is more clearly understood if we consider the direction of the forces applied in straightening the limb. The above rotation or tilting up of the lower fragment has the following consequences: (a) The separation of the epiphysis from the diaphysis externally; (b) the impaction of the compact tissue of the lower end of the upper fragment into the cancellous tissue of the resected portion of the diaphysis in the lower fragment, and the approximation of the line A B to the epiphysal line; (c) the assumption of a more vertical position of the internal portion of the epiphysal line.

4. The relations of the tibia to the condyles of the femur are not materially altered.

5. The relation of the external to the internal condyle is unaltered. The latter is not fractured through, although the osteotome penetrates the inferior epiphysis of the femur near the intercondylic notch.

In conclusion, these skiagrams appear to show the importance, in rectifying genu valgum, of being able to produce a displacement of the ununited epiphysis, and possibly also in treating other similar deformities.

THE INFLUENCE OF ACID ON GUINEA WORM LARVAE ENCYSTED IN CYCLOPS.

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THE practical study of dracontiasis, one of the oldest known and, in some regions, the most prevalent of tropical diseases, has been singularly neglected.

Although not a fatal disease or one which attracts much sympathy, its incidence nevertheless is commonly the precursor of much suffering and physical incapacity. Modern methods of treatment are at once so unsatisfactory and necessarily prolonged and so inaccessible to the vast majority of sufferers that it can only be from the application of prophylactic measures that the diminution or eradication of the disease is to be expected.

In dracontiasis a knowledge of the life-history of the *Filaria medinensis*, and particularly of the stage and manner of its entrance into the human body, must form the essential basis on which such measures may be framed, yet Manson appears to be the only observer who has made any important contribution to Fedschenko's original discovery of cyclops as the intermediate host thirty-six years ago.

Based on many theoretical considerations, but especially influenced by the recent discovery that the young stages of certain worms, such as *Ankylostomum duodenale* and *Strongyloides intestinalis*, make their way into the body of their host through the follicles of the skin, modern scientific opinion has become more and more prepared to postulate a like mode of entry in dracontiasis, while at least one authority has suggested that a second intermediate host might even be necessary. In view of the fact that a discussion in which these theories were in turn maintained took place on this subject at the last annual meeting of the British Medical Association, and was recently fully reported in the BRITISH MEDICAL JOURNAL, thus attracting considerable attention, I am induced to publish somewhat in advance an observation made by me while studying this disease on the Gold Coast, which seems to throw suggestive light on the question.

The embryos of *Filaria medinensis* during the first fortnight of their stay in the body-cavity of cyclops—that is, during their entire metamorphosis—continue to exhibit active vermicular movements. They also not infrequently change in position. During the third and fourth week, however, these changes gradually cease, and ultimately the larva lies almost wholly quiescent. If a cyclops containing such a larva be placed on a slide in a very small drop of water, and if, while it is being watched under the low power of the microscope, there be added some 0.2 per cent. hydrochloric acid, representing the