its absorption leaves the affected textures *in statu quo ante*—in their previous, actual, and functional integrity. I may remark, incidentally, on the very sensible and judicious treatment adopted in the early period of this case. The Friar's balsam (compound tincture of Benzoin) has been much disused of late, but is really an excellent styptic for hermetically closing a wound; and it thus fulfils the, perhaps, not least important function of the modern carbolic acid treatment.

The following case likewise exemplifies the pathological point last referred to in the preceding. J. W., aged 49, became a patient at St. Thomas's Hospital, after the healing of a wound which he received in the following way: A garden-fork, with long, flat prongs, was thrown at him, and one prong entered the back of the chest, immediately below the inferior angle of the scapula; a second prong made a smaller wound lower down. The depth to which the upper prong penetrated is, of course, conjectural; and the patient's assertion that it entered three or four inches is probably an exaggeration. He stated that he did not lose much blood from the wound, but that he afterwards had hæmoptysis. This must have been succeeded by pleurisy and hydrothorax, for there was an abundant flow of serum from the wound two months after the accident: this continued for a few hours only, and soon afterwards ceased entirely. He did not suffer much pain at any time; and the wound was quite healed at the end of three months. On examination with the stethoscope, in conjunction with my colleague, Dr. Clapton, I found that there was neither resonance nor vesicular murmur in the neighbourhood of the wound, and the respiration was bronchial: there was evidence of adhesion between the adjoining surfaces of the pleura at the injured part. As this last examination was made nearly two years after the accident, we may conclude that the condition described represents the permanent state of the lung.

In the College Museum is a representation of a sailor, who was transfixed by the pivot of a heavy trisail-mast, which passed obliquely through his body, entering above and to the inner side of the left nipple, and coming out at the upper part of the loin on the same side: he was otherwise seriously injured. The patient was under Mr. Andrews' care in the London Hospital, and recovered in five months so as to be able to walk about; and he ultimately resumed his sea-faring occupation. Probably the lung was perforated, in this instance, at some distance from its base; and it is doubtful whether the diaphragm could have escaped.

The preparation from our museum, which is on the table, is the anterior wall of the chest of a stout man, who was transfixed, transversely and horizontally, by the shaft of a gig. It entered the thorax on the left side, between the second and third ribs, fracturing the former, as well as the cartilages of the third and fourth; and, crossing the anterior mediastinum, made its exit at a corresponding point at the opposite side, fracturing the third rib. He was fixed in this position till assistance arrived; and, when liberated, breathed deeply and freely, and was not faint until he was prepared for bed, having walked to his house, close by. He survived ten years. The preparation shows the repair of the fracture and the adherent lung.

CARDIFF INFIRMARY.—We mentioned a short time ago (June 10th) that a number of working men had formed a Committee of thirty-five, for the purpose of raising sufficient money to clear off the debt of about £1,100. The Committee have already collected £223. The debt, however, is within a trifle of £1,200, instead of £1,100, which of course necessitates a greater effort, and, at the same time, makes it more praiseworthy.

DONATIONS.—Her Majesty has contributed £100 to University College Hospital; and a donation of £200 has recently been received from the Marquis of Westminster, for the general purposes of the hospital. The Marquis has lately forwarded a further contribution of £100 to the general funds of the British Home for Incurables at Clapham.—Mr. Stead, of Glasgow, has presented £1000 to the Hospital at Yarmouth.—The Ashton Infirmary has received a donation of £5,000 from Mr. Robert Huggin of Liverpool.

THE DOCTORS OF HERAT, IN AFGHANISTAN.—General Ferrier says as in their eyes every European is a doctor, their conversation never ceased running on the healing art, of which they considered themselves distinguished professors. They often brought with them their drugs, in order that I might tell them how to use some chemicals which they had received from India. They gave these chemicals in progressive doses, in all obstinate cases, until they found out the right dose, and in what diseases to use them. Finally, one of them, Mirza Aska, pulled a bottle of cyanuret of mercury from his pocket, and requested to know what devil of a salt that could be. "It has been of little or no use to me," he added, "for of over one hundred patients that I have given it to, all died but one."—*Caravan Journeys.*

THE HYDATID DISEASE IN ICELAND:

A FEW REMARKS ON DISTRICT-PHYSICIAN JOHN FINSEN'S CONTRIBUTION TO OUR KNOWLEDGE OF THE DISEASE.

By JOHN HJALTELIN, M.D.,
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AN abbreviated translation of Dr. Finsen's contribution may be found in the *British and Foreign Medico-Chirurgical Review*, No. LXXII, April 1868, with some remarks, probably written by the translator. Dr. Finsen seems very little acquainted with the best authorities on helminthology of our time. He freely quotes certain young physicians in Copenhagen, as Christensen, Storch, Aarestrup, and others, but takes little notice of the names of Cobbold, Davaine, or Siebold. Eschricht, Rasmussen, Storch, Aarestrup, and Christensen, have never been in Iceland at all; and of all Dr. Finsen's authorities, Dr. Krabbe alone has been here for a very short time, the greater part of which was spent in making some feeding experiments on dogs, in which he was assisted by Dr. Finsen. It was soon afterwards announced by them that the echinococcus of man was, by their feeding experiments in 1865, demonstrated to produce the *tænia echinococcus* of the dog, and this was put forward in some Danish medical journals without any regard to previous experimenters. The experiments of Krabbe and Dr. Finsen were afterwards made known in Germany through Dr. Kiichenmeister, Leuckart, and others. These experiments and the alleged discoveries of Dr. Krabbe, and perhaps of Dr. Finsen, who is himself an Icelander, became mixed with some curious stories, which were afterwards promulgated by high authorities. This was, no doubt, done without their being aware that they were spreading incorrect statements about a harmless, and by no means stupid little nation; namely, Iceland. One of these statements is to be found in Dr. Spencer Cobbold's little work, *Tape-worms and Thread-worms*, second edition; London, 1867, p. 57. "On the authority of Krabbe, it has been stated by Leuckart, that for every 100 inhabitants of Iceland there are 1,100 head of horned cattle, and every peasant has, on an average, six dogs. In Denmark, there are 180 cattle to every 100 of the people. There are several of the Icelandic doctors who not unfrequently have upwards of 100 patients (afflicted with this disease) under treatment at the same time, the total number of such cases in the island being estimated at 10,000. By far the greater number of those patients, however, are in the hands of quacks, whose influence is the greater because there are in all Iceland but six legally authorised medical practitioners, each of whom presides over a district of about 1,500 square miles (English), embracing a population of about 1,000 individuals. The treatment of the quacks is exactly suited to keep up the epidemic, for, amongst their remedies, the urine and excrement of dogs play a conspicuous part."

It would be difficult to find a statement of equal length which contains more error than this; and I am sorry that medical men of distinction, such as Drs. Cobbold and Leuckart, have been induced to adopt such misstatements. I have the pleasure of knowing Dr. Cobbold personally; and, should he happen to read these remarks, I request him to rest assured of my high esteem, and that I know that he and Dr. Leuckart are not to blame in this matter.

To estimate the value of Dr. Finsen's contributions to our knowledge of the echinococcus disease in Iceland, it will be necessary that the reader should be made acquainted with his proceedings here for ten years as a district physician. Dr. Finsen came here in 1856, when he had just qualified as a physician at Copenhagen, and had no experience of the endemic diseases of Iceland. He possessed, however, much of that self-confidence which sometimes belongs to young practitioners. He was, like the other district physicians, bound by our laws to send to me, as the chief physician in the country, a yearly report on the prevailing diseases in his district. I found that, contrary to custom, his reports were filled with insignificant cases, such as *otalgia*, *odontalgia*, rheumatic pains, and hysteria. The result of this upon his statistics will be presently seen.

Dr. Finsen states that the frequency of the hydatid disease in Iceland, as compared with other maladies, is only as 1 to 26. I must here remark, that this is quite contrary to the experience of every other observer. The late Dr. Thorstensen, who for nearly thirty years was the physician-general of this country, found that about 1 in 7 of the inhabitants was affected with hydatids. According to my own experience of numerous autopsies, I am inclined to think that in native Icelanders traces of echinococci may be found in nearly every *fifth* adult dead body in one or another of the internal organs. About thirty years ago, it was a general custom in this country to register the cause of death; and, by

comparing the fatal echinococcus disease with other mortal diseases, it was then found that nearly every fifth adult died of hydatids, or of their complications with other maladies. This was accepted by Dr. Thorstensen, Drs. Thorarensen, Skaptason, and others.

When Dr. Finsen began his career here, there were three very able physicians in the island; viz., Dr. Hjalmarsen, Dr. Thorarensen, and Dr. Skaptason, who for many years, not only in their official reports, but in foreign medical journals, had made numerous practical observations on the hydatid disease. Dr. Thorarensen had made his name known, both in German and French medical periodicals, as having cured hydatids by electricity, and also as having effected a cure, in many cases, by puncture, in which operation he had great experience. Dr. Skaptason had collected very instructive cases, which seemed to prove that the echinococcus disease is hereditary. I myself afterwards proposed the internal use of tincture of kamala, which was used with considerable success both by Dr. Thorarensen and Dr. Hjalmarsen. Dr. Finsen, however, writes "that it will probably have surprised many that the physicians in Iceland, who, beyond all others, must have the opportunity of acquiring rich experience in this direction, should have remained perfectly passive, and not have made the least exertion to elucidate a disease almost peculiar to their country." In the name both of my dead and of my still living colleagues, I protest against this; and I am now prepared to show that they have, in a practical point of view, done far more than Dr. Finsen himself.

In 1862, a well-known English physician, Dr. Leared, physician to the Great Northern Hospital, London, came here. He then wrote a popular and clear article on the causes and prevention of the echinococcus disease of this country. He showed that, according to the views of the best helminthologists of our time, this disease had its origin in a kind of tænia (the *tænia echinococcus*), very common in the Icelandic dog. I translated this article, and had it printed in the Icelandic newspapers. The best and surest method to prevent this endemic disease would, according to Dr. Leared's views, be to cure the dogs themselves of the tænia echinococcus; and, in order to do so, he advised that all the dogs in the island should be simultaneously dosed with kamala, which is a sure remedy for tape-worm in these animals. From this plan I got the idea of using the tincture of kamala against the hydatid disease in man. Dr. Leared's plan was both original and practical; but, although he himself wrote about it to one of the leading physicians in Copenhagen, nothing came out of it; and even Dr. Krabbe, who came here two years later, did nothing in that direction, but thought that the best preventive measure would be to kill a great number of the shepherds' dogs. This proposal was sent to our Diet; but it was demonstrated that, though Dr. Krabbe had very much exaggerated the number of shepherds' dogs in Iceland, the execution of his plan would still leave many thousand dogs afflicted with tænia echinococcus, and that the hydatid disease would still be disseminated both amongst men and sheep. The shepherd's dog is quite a necessity to the Iclander, for, without it, it would be impossible for the peasants to collect their sheep in the mountainous regions; every peasant must, therefore, according to the number of his sheep, have a certain number of dogs; and when, as has sometimes happened, they are rendered scarce by disease, they are bought at a very high price. I myself, in the Icelandic Diet, supported Dr. Leared's plan of curing the dogs, and would at the same time have all the hydatids of sheep and cattle burnt or buried in the earth, when those domestic animals are slaughtered; but both propositions are still unsettled by our Government. Dr. Leared himself may best be able to tell how his propositions were looked upon in Copenhagen; and I should like that he would make this matter known.

The statistics of the echinococcus disease in Iceland, as laid down in the writings of Dr. Finsen, are very inaccurate; and especially as regards his calculations about the seat of the disease in the various internal organs of the body. Dr. Finsen says that in his 255 cases, the origin of the echinococcus was, in relation to the several organs, found to be as follows: 176 in the liver, 3 in the kidneys, 2 in the spleen, 52 in the abdominal cavity (but where, is not mentioned), 7 in the lungs, 4 in the head, 1 in the nape of the neck, 2 in the supraspinous region, 1 in the subclavicular region, 2 in the axillary region, 1 in the arm, 1 in the mamma, 1 in the thigh. These statements are neither confirmed by autopsies, nor by microscopical, nor by clear clinical observations. Dr. Finsen evidently takes a good deal of interest in statistics, but statistics ought not to be built upon mere conjectures, or incomplete clinical observations.

I cannot help thinking that many of Dr. Finsen's so-called hydatid tumours—especially those in the external parts of the body—were nothing but serous cysts. Serous and atheromatous cysts are by no means unfrequent in this country. They are common in the neck ("hydrocele of the neck"), near glands, and in glandular tissues, as in the thyroid

gland and in the mammae, as well as in the subcutaneous tissues. When Dr. Finsen, on the other hand, tells us that he has in seven cases, or only in two per cent. of all his cases, met with echinococci in the lungs, he has most likely overlooked many of them in that organ; for, according to my experience, and to the experience of all my medical brethren in this country, echinococci occur in the lungs far more frequently. In our sheep, echinococci are extremely common; and they are found nearly as often in the lungs as in the liver. I am very often consulted by people affected with chronic bronchitis, or bronchopneumonia, and hæmoptysis, who expectorate many echinococci, or their membranes. Echinococci in the spleen are certainly of very rare occurrence; and I have only once met with echinococci in the kidneys. In short, I look upon Dr. Finsen's statistics as almost worthless.

Dr. Finsen's symptomatology of the echinococcus disease is equally erroneous. He says that echinococci may be present in internal organs even for several decades, without producing any symptoms whatever indicative of this disease. This statement, which has also been made by some Danish physicians, who have had either a very limited or else no experience of the disease, is only partially true. Hydatids seated in internal organs, in most cases give rise to symptoms, which may be said to be premonitory, when they occur without any palpable tumour. These symptoms are variable, according to the seat and the size of the parasite, and consist mainly in the *functio laesa* of the affected organ. This rule holds good, whether the hydatid exists in the brain, in the spine, in the organs of the chest, or in one of the abdominal organs.

When the nervous centres are affected, the symptoms may either be cramps, or paralysis, or anæsthesia, with or without mental disturbance. If the disease is situated in the lungs, we find cough, dyspnoea, chronic bronchitis, with dull percussion in the affected part of the lungs, hæmoptysis, and expectoration of the echinococci themselves. When in the liver, hydatids will, even in their early stages, cause jaundice, together with well-marked dyspeptic symptoms, and sometimes hepatitis. It is true that many of the symptoms, caused by hydatids in their earlier stages, are very puzzling, as the same symptoms may depend on growths of quite a different nature, or on chronic inflammation; but the statement of Dr. Finsen, that echinococci may be present for several decades without producing any symptoms whatever, is altogether erroneous. When Dr. Finsen, to prove his position, adduces the autopsy of the Rector Arnesen (see p. 21 of his memoir in Danish), he is greatly mistaken. I knew this patient well for many years, and can testify that he was very dyspeptic, and had symptoms of disordered liver.

Récamier's treatment of hydatids, used by Dr. Finsen, has, for a number of years, been well known to his Icelandic medical brethren. None of them, except myself, has given it a trial, and I soon abandoned it. As far back as 1863, a long article on Récamier's treatment of hydatids, written by Dr. Finsen, appeared in the Icelandic newspapers. In this article it was stated that out of 116 patients, he had operated upon 32 after the method of Récamier; that of these, 19 were cured, 5 died; and that in 8 cases there was no result, although some of them had been under treatment for many months. About this time the governor of the north of Iceland attacked Dr. Finsen for having unwarrantably operated, after the method of Récamier, upon his own clerk, without any good result. As Dr. Finsen had written of the puncture of hydatids not only as an useless, but as a dangerous, operation, he came into opposition with some of his medical brethren, one of whom, up to that time, had punctured about 40, with the best results. As the official chief physician in this country, I could not, in the meantime, bear that the governor should interfere in this matter, and thereupon wrote an article in defence of Dr. Finsen. The governor made no reply; but some of our medical men murmured at Dr. Finsen's behaviour in reference to the results of the operation by puncture. He nevertheless maintained that nearly all those treated by this method died, which was altogether unfounded.

I resolved myself to try the method of Récamier in some cases, which seemed to me more favourable for it than others, but am sorry to say that nearly one-third of all those operated upon died. In two cases, where an autopsy was allowed, I found that very extensive peritonitis was the cause of death; and, although marks of the caustic could be clearly seen on the hydatid cyst itself, there was not the slightest trace of adhesion to the interior of the abdominal wall.

After I had quite given up the method of Récamier, and had returned to my old method of puncturing hydatid cysts, I happened to read Dr. Murchison's excellent article "On Hydatid Tumours of the Liver; their Diagnosis and Treatment." As the experience of this excellent physician is quite in accordance with my own experience, my faith in the treatment by puncture became strengthened, and I have since that time operated in a great number of cases with the best results. Should Dr. Murchison happen to read these remarks, I request him to accept my best thanks, not only for the theoretical and practical information which

I have obtained from his work *On Continued Fevers*, but also for the information about hydatids and their treatment contained in the aforesaid article.

I feel convinced that the revival of Récamier's method by Dr. Finsen will be unsuccessful. Although some German doctors—as Professor Küchenmeister—have regarded it as a practical operation, I feel pretty sure that contrary views will be held in England. It seems to me that the statistical statements of Dr. Finsen himself form the best arguments against this method of operating. Dr. Finsen says that, during his stay in Iceland, he had 255 hydatid patients under his care: out of this number 48, or not 1 in 5, were operated upon; and only 31, or not 1 in 8, recovered. It is not clear how many of the 48 operated on were lost; but it is certain, from his own statements previously published, that in 1863, out of 32 patients operated upon, 5, or every sixth case, died, and 8 were treated without any good result.

It is well known that Dr. Davaine operated upon 12 patients for hydatids, according to the method of Récamier: out of this number he lost 6, or 50 per cent. This bad result, compared with one nearly as bad by Dr. Finsen, ought to make medical practitioners cautious about performing so dangerous an operation.

As I am now preparing a monograph on the Hydatid Disease of Iceland, which is intended to show my own practical experience, as well as that of my medical brethren, in this matter, it is unnecessary to enter more deeply into this subject at present.

CASE OF RESECTION OF THE KNEE-JOINT: FOLLOWED BY FIBROUS ANCHYLOSIS: AMPUTATION: SPEEDY RECOVERY UNDER THE ANTISEPTIC TREATMENT.*

By JAMES D. GILLESPIE, M.D., F.R.C.S.E.,

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W. M., aged 22, a miner, was admitted into the Royal Infirmary, Edinburgh, on October 31st, 1865, with disease of the knee-joint. It had begun two years previously, with pains of a lancinating character, and no swelling. He continued at his employment in England up to ten months before his admission, when he was obliged to seek surgical aid, but without obtaining material relief. While he was under treatment in the Infirmary, various remedies were employed till November 28th, when, as nocturnal pain had much increased, and the patient was most anxious to have active measures adopted, excision of the joint was performed; a semilunar incision being carried round the lower margin of the patella—that bone, and a portion of the condyles of the femur, with a thin slice of the head of the tibia, being removed. The disease was found mainly to consist of ulceration of the cartilages. The cut surfaces of bone were brought into close apposition, and found to fit accurately; the limb was supported on a long Gooch's splint, enveloped in plaster of Paris, and fastened to a Salter's swing, in the way recommended by Dr. P. H. Watson.

The following short notes indicate the progress of the case.

Dec. 5th. Almost the whole of the incision was healed. There was moderate discharge of healthy pus.

Dec. 20th. The incision was entirely healed; but a small abscess was forming on the inner side.

Dec. 23rd. The abscess had opened.

Jan. 2nd, 1866. The wound was healed.

March 20th. A leather knee-support was applied, and the patient was sent to the Convalescent House, able to bear his weight on the leg with ease.

April 28th. He was readmitted with a small abscess.

May 26th. He was dismissed cured, able to walk with much freedom.

Dec. 12th. After his dismissal, he returned to England, and again commenced work in a pit; and says that he gave his knee a wrench, which caused it to become first swollen and painful, and latterly weak. It was put up, and kept for a long time at perfect rest, but without much apparent benefit; as, although the bones appeared to be in the closest approximation, they were slightly moveable. A powerful electric current was next tried, as recommended by Dr. John Duncan for aneurism. Two long needles were inserted at the outer and inner side, and the current kept up for about ten minutes. It was found very difficult to insert the needles, owing to the close apposition of the bones. This application caused inflammation, and the discharge of a minute piece of bone from one of the points of insertion; and it seemed to consolidate the parts.

Aug. 23rd, 1867. He was sent to the Convalescent Hospital, again able to use the limb.

Feb. 5th, 1869. He was readmitted. He had been again in England, and latterly been employed as a gate-keeper on a railway; but he had required a much stronger support for his limb, and it had gradually been becoming atrophied and weak. There was now great mobility. The cicatrix was perfectly healed; and the bones were apparently in admirable apposition, but moveable. The leg was three inches shorter than its fellow, and much atrophied.

March 9th. Amputation was performed at the lower fourth of the thigh, by long posterior flap, and a short anterior one close to the cicatrix. The vessels were twisted, and a few secured by fine silk ligatures, which had been steeped in carbolic acid and dried, cut off short in the wound. In the evening, the flaps were accurately brought together by sutures of the same sort of silk as had been employed for ligature, and put up antiseptically.

On March 10th, the pulse was 96; on the 12th, 92; and on the 18th, 80. The dressings were now for the first time removed, and the stump found entirely consolidated. The skin was not quite healed; but there was not a trace of pus. The carbolised sutures were removed. The patient was able to be up.

March 25th. He was sent to the Convalescent Hospital, cured, sixteen days after the operation.

I have deemed this case worthy of notice, as it illustrates two points.

1. The occasional failure of excision of the knee-joint, after it has apparently been most successful; the patient having been, on his first dismissal from the hospital, in a state which warranted the belief that the ultimate usefulness of the limb was secured; but, when it came to be tested by hard work, it began to fail, the occupation of a miner being peculiarly unfitted for a man with a leg incapable of flexion. You will see, by an examination of the preparation and the drawings, that there is now no trace whatever of bony anchylosis; the rounded extremity of the femur playing in the cup-shaped head of the tibia, with strong fibrous tissue intervening. In the head of the tibia may be seen a small healing cavity, whence a minute piece of bone had been expelled previous to his last admission into hospital. This cavity does not communicate with the original cut surface of the tibia; so the sequestrum was probably the result of inflammation induced by the pressure of the end of the femur. The section of the false joint shows how accurately the bones were in apposition; while the drawing of the joint before it was divided indicates that a considerable portion of the condyloid extremity of the femur had been left unremoved by operation.

This is the only case in my own practice, and, so far as I know, in the practice of my colleagues of recent years who perform resection, where permanent bony anchylosis has not been established; and it appears to me due to the profession to narrate its history, as it tends to

Section of a resected knee-joint.—A. Line of section. 1. Femur. 2. Tibia. 3. Fibula. 4. Oblique section of tibia. 5. Dense fibrous tissue enveloping the bones. 6. Healing cavity, from which a sequestrum had been discharged.

show that, in exceptional instances, however carefully the bones are brought together, however immoveable they may be made by suitable apparatus, and however satisfactory the immediate result may appear, gradual giving way of the apparently firm union may take place, and disappointment as to the ultimate issue ensue. I do not think that the unexpected termination of this case should bear any weight against the operation, for bony anchylosis is undoubtedly the rule, not the exception; and I have met with excellent results.

2. The second point to which I would allude is the very rapid recovery after amputation, without a trace of pus during the consolidation

* Read to the Medico-Chirurgical Society, Edinburgh, June 2nd, 1869.