Lectures
ON
DISEASES OF THE JOINTS.

Delivered at St. Mary's Hospital.

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LECTURE VI.

ON THE DISEASES OF THE ARTICULAR EXTREMITIES
OF BONES.

(Continued from page 655.)

FROM the view which I have taken of the nature of this disease, you will at once understand that I place more reliance for its treatment in constitutional, than on local remedies. The same remark, indeed, applies to all scrofulous affections of the joints, and I shall therefore conclude this lecture with a description of the various modes of treatment, both general and local, which have been recommended for articular disease affecting scrofulous subjects.

Scrofulous disease of the heads of bones—and the same may be said of this affection without reference to its particular seat in the bone—never, I believe, admits of radical cure, except in the very earliest stages, when it is limited to a small extent of tissue, consists in mere expansion of the cancelli with hyperæmia, and manifests itself by some tumefaction of the head of the bone with, perhaps, increase of its temperature. These symptoms, together with pain, indicate a commencement of inflammatory action, and the young practitioner might be disposed to have recourse at once to active antiphlogistic measures. Experience, however, demonstrates that local bloodletting is scarcely ever admissible, and on no account to be accepted as a general rule of treatment. In some cases where the constitutional signs of scrofula are equivocal, and the symptoms are severe at the beginning, a single application of leeches to the joint may be indicated, but under any other circumstances I cannot recommend you to have recourse to abstraction of blood.

This rule applies to scrofulous disease of the articular extremities of bone, but I would not extend it to certain cases of disease in the shafts of bones accompanied by periostitis; for this, though of a scrofulous nature, may manifest itself in so acute a form, as to require active controlling measures. Cataplasms or warm fomentations have no effect on the deep-seated inflammation, and can only afford some relief when an abscess is making its way to the surface, giving rise to pain and inflammation of the superficial tissues.

The propriety of having recourse to counter-irritation at an early stage of the disease, has given rise to much difference of opinion amongst the best authorities. Sir Benjamin Brodie, says, "all kinds of counter-irritation, such as blisters, issues, setons, and tartarized antimonial ointment, are not only not useful, but actually mischievous." The only exception which he admits to this rule, is in cases where the disease, being situated in the hip-joint, is productive of more than an usual amount of pain. Here the use of several small blisters in succession, or the insertion of a seton in the groin, immediately in front of the hip-joint, afford much relief to the patient. Many of the continental surgeons, on the other hand, advocate the use of revulsive or discutient applications to the skin in scrofulous joint diseases. Those most commonly employed, are the iodine ointments of Lugol, and the lunar caustic ointment of M. Jobert de Lamballe. When iodine ointment is employed, it should be strong enough to cause desquamation of the cuticle in a few days, and contain one part of iodine, two parts of ioduret of potassium, and about thirty of lard. The joint should be rubbed with this ointment twice a day. M. Jobert's ointment contains, according to its strength, four, eight or twelve drachms of the nitrate of silver, to thirty drachms of lard. This remedy soon excites a pustular inflammation of the skin, and according to M. Jobert, is one of the best means we can employ for combating the pain and tumefaction which attend white swellings of joints.

My own experience is against the use of counter-irritants or discutient applications in the early stages of this affection; their efficacy is more apparent than real; they merely excite absorption of the fluids effused round the joint, and exercise no influence whatever on the progress of the disease which is going on within it; in fact, they simply act as does compression over a cancerous tumour, removing the innocuous products of

inflammation, but leaving the original disease and the cause untouched. The great inconvenience attending the use of counter-irritant and revulsive measures is the danger of carrying the external irritation too far, and thus augmenting instead of diminishing the internal malady.

This objection does not apply to the use of douches and topical warm bathing, which have been found advantageous in many cases of scrofulous diseases affecting the smaller articulations. M. Lebert, who has had considerable experience in the use of douches at the mineral baths of Lavey, regards them as best suited for cases of inflammation of the heads of bones, when the disease has lasted for some time, and when the surface of the bone remains intact, or the fistulous ulcerations in it are superficial. They are still more efficacious at a later period to promote absorption of the plastic materials, which produce stiffness of the joints. Besides, local applications of every kind interfere with a condition which is essentially necessary to a cure; I mean keeping the joint perfectly at rest, in such a position that the opposite surfaces of the articulation shall exercise the least pressure on each other.

I have already explained so fully the necessity of paying attention to these two points, that I shall not dwell on them here, but an additional remark or two in reference to scrofulous affections must be added. The structure of the hip-joint renders it impossible to keep that joint in a state of perfect repose, unless the patient be confined to the recumbent posture. Hence in scrofulous disease of the hip, you must place the patient on a bed or couch, and keep him there; but in all other cases I would content myself with securing the joint firmly in a proper position by means of splints, as I have already described, and allowing the patient to enjoy as much exercise in the open air as possible, taking due care that it is modified in such a manner as not to excite pain or uneasy sensations in the affected limb. It is almost unnecessary to remind you that free exposure to pure air exercises a more beneficial influence on the health of scrofulous persons than any medicine whatever, and experience has abundantly convinced me that any local effects of an injurious nature which may arise from exercise, (and, with proper care, we can generally avoid them,) are greatly counterbalanced by the genial influence of sun and air on the constitution of the patient.

The general treatment of scrofulous affections of the joints requires to be conducted with much discrimination, and pursued with untiring perseverance, for months, or even years, may pass over before a cure can be obtained. It is, however, a consolation to know that the disease is less dangerous than it appears to be, and that numerous patients, who formerly would have been condemned to undergo amputation of the limb, now recover under judicious treatment, with no other inconvenience than the deformity produced by ankylosis.

If the general condition of a patient labouring under scrofulous disease of the joints at an early stage be carefully examined, we shall often find some derangement of one of the grand secreting organs. The one most frequently in fault is the liver, and hence mild alteratives should be administered for a few days, care being taken at the same time to obviate a torpid condition of the colon, which frequently exists. Of medicines which act on the constitutional derangement which is supposed to characterize scrofula, the best are cod-liver oil, iodine, and iron, and of these cod-liver oil is unquestionably the most efficacious. The value of this remedy is also enhanced by the fact that it appears to exercise a more beneficial influence over scrofulous disease of the bones than any other,—a form of the malady which has hitherto been most inaccessible to the effects of remedies. It is important to keep in mind that this remedy, to prove efficacious, must be continued for a long time, perhaps for months, its use being interrupted from time to time, to prevent derangement of the digestive organs. The dose for a child is about a teaspoonful thrice a day; adults may take a tablespoonful. It is seldom advisable to go beyond an ounce in the day, though many practitioners have carried the dose as far as three or four ounces. Cod-liver oil is not a specific for scrofula, and you must be prepared to meet with disappointments during its use; but a vast number of cases have established its efficacy, and I am inclined to believe that it possesses as much power over scrofulous affections of the bones as iodine or potassium does over secondary syphilitic diseases of the same organs.

The preparations of iodine have likewise an anti-scrofulous effect. They may be administered according to any of the well-known formulæ, or alternated with the cod-liver oil. Their efficacy is inferior to that of the oil, and, unless continued for a great length of time, they seldom produce any-

thing beyond a temporary alleviation of the symptoms; still, experience has proved that, when properly administered, and assisted in its action by other means, iodine has effected a cure in many cases of severe and long-standing scrofulous affections of the bones.

When the patient exhibits that peculiar cachectic state which often accompanies scrofula in large towns, being feeble and emaciated, with dirty skin, and an anæmic appearance, the preparations of iron may be useful, and one of our great authorities on diseases of joints seems to prefer them even to iodine or the oil. He recommends for children the iron wine or the syrup of the citrate, and sometimes of the iodide of iron, for three or four weeks, when it is discontinued for eight or ten days, to be resumed again, and continued for a long period.

The functions of the skin are always deranged during the progress of scrofula, and hence perhaps the well-known efficacy of warm or tepid bathing, not only at the commencement, but in the more advanced stages of scrofulous joint-disease. Cold baths likewise produce excellent effects from their tonic properties. Neither hot nor cold bathing should be recommended indiscriminately at an early period of the disease. If the joint be painful, and any signs of active inflammation exist, it will be better to wait until the symptoms subside, when tepid baths, at a temperature of 90° may be tried. If they agree, the patient may continue in the bath for a quarter of an hour at a time, and they may be repeated every second day for a month or six weeks. After this period, or if the treatment has not commenced until all signs of active inflammatory process have disappeared, tepid salt-water bathing should be employed, and after a short time the temperature of the bath must be cold. The use of cold sea-water baths must, of course, be restricted to the fine season, from May to the end of September.

When circumstances preclude the patient from removing to the sea-side, we must endeavour to imitate the sea-water bath in the best manner we can. The most simple way is to dissolve from three to six pounds of common salt in twenty-five to fifty gallons of water, and this bath is perhaps as efficacious as any other. The principal point to which you must attend is that the bath, whether natural or artificial, does not produce over-stimulation, and hence its effects should be carefully observed. Cold sea-bathing is undoubtedly more efficacious when convalescence has commenced than at any other time. At this period also the alkaline or sulphuretted mineral baths have been employed with great advantage, and there can be no doubt that iodine baths have also proved useful, though it is difficult to separate the action of the bath, in such cases, from that of the remedy which is rapidly absorbed by the skin.

I have already said, that as a general rule, I would not advise you to be lavish of revulsive or stimulant applications in the treatment of scrofulous diseases of the joints. Still, I would not say that they should be absolutely rejected. A great deal will depend on the form of the disease, and the general condition of the patient. When the disease is confined to the articular extremities of the heads of the bones, it would not appear that external applications produce any marked effect in arresting it, and when the patient labours under that form of scrofula which is attended with general debility, the use of setons, issues, or any revulsive, accompanied by a drain, is positively injurious. On the other hand, when the disease is seated in the synovial membrane or cartilages, has become manifestly chronic, and is attended with effusion into the periarticular tissues or ligaments, giving rise to stiffness of the joint and indolent swelling, various local stimulants may be employed with advantage. Frictions with iodine ointment are, perhaps, the best that we can have recourse to, and great benefit has been obtained from the judicious employment of douches, whether simple or medicated, hot or cold, in cases of chronic scrofulous arthritis, whenever the effused matters are of a kind susceptible of being removed by absorption. Warm douches seem preferable to cold ones, or to the vapour douche, though in some cases this is a valuable auxiliary. The general and local means now recommended would, however, produce but a limited effect, unless aided by proper hygienic measures—a fact which you can readily understand by remembering that scrofulous disease of the joints can only be treated successfully through the constitution, for the local malady is but a manifestation of the general or constitutional cachexy.

I have already spoken of the necessity of placing the limb in a proper position, and have nothing to add upon this point. It is also expedient to keep the affected articulation at rest by mechanical appliances, but I cannot agree with some practitioners that we should carry our fear of motion so far as to

condemn the patient to a state of absolute repose. On the contrary, I maintain that exercise in, and exposure to, the open air, are eventually requisite for the improvement of the patient's general health, and that the joints (with the exception of the hip) may be sufficiently secured to enable the patient to go about without incurring any danger. Air and light are the best remedies for scrofula, and without them our medicines are nearly powerless. The diet should be plain, and substantial in quantity, such as the stomach can readily digest, and in quality such as is best calculated to sustain the strength of the patient.

In the preceding observations I have confined myself to the symptoms and treatment of scrofulous joint-disease at its early stage, because then the different forms admit of being distinguished from each other, and require certain modifications in the treatment; but when suppuration, followed by perforating abscess, ensues, the various primary forms become confounded, the question of abscess and its treatment is super-added, and the propriety of amputation or excision must be considered. Caries, necrosis, and ankylosis also demand attention; and a variety of other secondary points press on us. I shall therefore devote a lecture to abscess of the joints, and with it describe to you the symptoms of scrofulous arthritis in its advanced stages, its treatment, and the different modes in which it may terminate. This is the only method of practical utility, and it will enable me to avoid many useless repetitions.

ON BLOODLETTING.

By MARSHALL HALL, M.D., F.R.S.

To the Editor of THE LANCET.

IN THE LANCET of the 17th instant, a brief reference was made to the question of bloodletting, as illustrated by the records of the General Hospital, near Nottingham. I have now the satisfaction of sending some details on the same subject.

Between the years 1817 and 1826, I published my papers "On the Morbid and Curative Effects of Loss of Blood," "On Certain Forms of Puerperal Diseases," in which it was customary to bleed, but erroneously and often fatally, and "On the Due Institution of Bloodletting." To these, and other works, I believe we owe the great improvement in the practice of medicine in this respect. It is a legacy I bequeath to my noble profession.

May I, through your pages, express my wish to be furnished with documents similar to the able one of Mr. White, from those gentlemen whose situations in hospitals and other public charities may enable them to illustrate by facts and statistics this momentous and vital question?

I have an interesting note from the late Dr. Baillie, prognosticating this effect of my labours.

I am, Sir, your obedient servant,
MARSHALL HALL.

London, June, 1854.

The General Hospital, near Nottingham.
June 19, 1854.

MY DEAR SIR,—It gives me very great pleasure to enclose the accompanying table, which I have prepared from the hospital returns for the last thirty years. I have noted the total number of patients (in and out) entered on the books of the hospital each year, and have taken the average cost of leeches in periods of five years during the same time. You will observe that, with the increase in the number of patients, this item of expenditure correspondingly increased till 1836. In that year, the cost of leeches was £90 5s. 6d., with 2195 patients. From this time the expense of leeches gradually diminished till 1849, since which year the cost has been very small.

Years ending March 1.

	£	s.	d.
In 1851 it was	10	4	3
„ 1852 „	6	10	10
„ 1853 „	6	16	0
„ 1854 „	3	5	0

This last sum with the great number of 6671 patients.

The number of bloodlettings have also diminished in a corresponding ratio. I am sorry that on this point I cannot give you any precise statistics; but the following fact will show the change. Mr. Eddison tells me, that in 1835 or 1836, he recollects bleeding either fifteen or sixteen patients in one day at this hospital. During the last five years and a half (with a number