

fluid, are requisite. Friction and elastic compression are also essential elements in the treatment of these diseases in certain stages. If the effused fluid have undergone degenerative metamorphosis, it should be evacuated by means of the aspirator, if possible. If, however, the contents cannot escape by the aspirator, then the joint should be freely incised under the antiseptic spray, and carefully washed out and dressed according to the principles so admirably described by Mr. Lister.

If the disease have progressed to caries or necrosis before it comes under observation, it is frequently accompanied with one or more tortuous sinuses which afford but an insufficient exit to the morbid materials, and hence it is possible, by means of a free incision in the right direction, to facilitate the exit of the discharges, and then by following out the general instructions above given, repair may take place with more or less deformity and partial or complete ankylosis. But in this latter condition of caries or necrosis, after having given the patient the benefit of the treatment just recommended, and the disease still goes on progressively, showing the extent of disease to be so great, or, that the constitution of the patient is so bad that he will probably succumb before the escape of the diseased bone could be effected by the slow process of exfoliation; then, excision and complete removal of the diseased parts is our only remedy. This, when done properly, and with proper after-treatment, will frequently yield the most satisfactory results. In the knee, we have a splendid limb with ankylosis; in the ankle, hip, elbow, and wrist, we frequently have fine results with but slight deformity and very nearly complete motion.

### SHORT NOTES ON THE USE OF SAYRE'S SWING AND PLASTER JACKET IN SPINAL DISEASE.

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AFTER a somewhat extensive employment of Sayre's plan of treating spinal disease, the following points in connection with it, in addition to those recorded in my lecture upon the subject, published in this JOURNAL for September 21st, 1878, may be worth recording.

The plaster jacket must in all cases be made to reach one inch to one inch and a half below the anterior iliac spines, or the patient will be unable to wear it; a too short jacket is the commonest failure. The anterior iliac spine must be protected with a pad of cotton-wool; and one should be placed over every bony prominence, natural or acquired; the ensiform cartilage often has to be thus protected. All the permanent pads used—the dinner and breast pads are only temporary—are best placed *outside* the merino vest; they do not in this position become so readily hardened and clogged by the perspiration.

If the plaster bandage be put on in a spiral fashion, there is less chance of its "giving" in the loins—the weakest place in the jacket; if attention be paid to this, tin strips may be dispensed with. The strain on the jacket being less in a case of caries than of general curvature—in which the tendency to "telescope" is great the moment the patient is removed from the swing—more care must be given to the strength of the jacket and the setting of the plaster in the latter than in the former. A case of caries may walk away in an hour or two; but one of general curvature is best kept lying till the next day.

The bandages can scarcely be too thickly spread with plaster-of-Paris; the after smearing on of a layer of plaster outside all looks well at the time, but is useless in point of strength; it soon cracks, and is the cause of the "crumbs", by which an improperly put up "Sayre" can be tracked from room to room.

In employing the jury-mast, a thin jacket should be first put on, of two to three bandages, while the patient is in the swing; when it has set, the patient should stand, and the jury-mast can be fitted with more bandages, and the jacket brought to the required thickness.

In spinal caries, fixation of the jacket—physiological rest—is of primary importance; the extension is secondary. Yet the maximum amount of good to the patient will not be obtained without the employment of the latter. It not only opens the chest (retaining it in its most capacious form), but it each time helps to decrease deformity; and those who employ the jacket without extension treat the disease, but miss the full benefit of the treatment in regard to the distortion. A variable amount of straightening is obtained as ankylosis progresses; once in a favourable condition, Nature tends to bring back the body to the normal standard; but the great gain is each time the patient is swung for the jacket to be applied. Repeated extension is not advisable; it interferes with "physiological rest".

In lateral (general) curvature, extension is of primary importance; fixation is secondary. Mild cases may be cured by daily extension alone without the jacket. Great straightening and diminution of rotation are

obtained in the swing at the putting on of the jacket; but the same exercise—extension from the head, as described by Professor Sayre—must be continued twice daily; first, with the intention of keeping the spine straightened, and in very bad cases of opening up the chest more and more; and, secondly, to act as dumb-bells to the dorsal muscles which invariably waste from want of use under the jacket. In spinal caries, this is unimportant; for, ankylosis being completed before the jacket is discontinued, the spine is rigidly fixed and able to hold its own from the first; but in general curvature, there being no ankylosis, the muscles are called upon the moment the jacket comes off, so that if they are wasted the patient will be often utterly unable to keep himself erect on the removal of the jacket till his muscles are again in "working order".

General curvature or caries of the cervical spine must be treated with the jury-mast. In the former, the daily exercise must be employed in addition. In a case of caries, a girl aged 14, with fifteen months' history, and pharyngeal abscess, all her pain, inability to support the head, posterior cervical thickening, with much deformity, entirely disappeared after one year's wearing the jury-mast. No visible deformity remained; but deep pressure with the fingers at the back of the neck could detect an unnatural fullness. The same jacket was worn the whole time—an exceptional circumstance.

Upper dorsal caries ought to be treated with a jury-mast; yet the jacket alone, by fixing the ribs, as Sayre has described, will suffice to give physiological rest to a boss that itself lies above the level of the jacket.

Upper dorsal general curvature must have a jury-mast, if any apparatus at all, and the daily exercise. Below these points, both forms of disease are alike treated with the jacket; the general curvature requiring the exercise as well.

Where spinal caries is complicated with abscess, especially if already open, above the level of the iliac spines, the case is difficult to treat, even in the way that Sayre has indicated; but where the abscess exists, or is open below that level, treatment is easy. If already a sinus, it requires only some ordinary dressing; if still an unopened abscess, it should never be opened; but, by supporting the patient in a jacket and enabling him to walk about, the pus gravitates downwards, points more rapidly below the jacket, the abscess will open of its own accord, and discharge thoroughly, though gradually, without rise of temperature, or interference, as a rule, with the patient's getting about. It is a mistake to keep a case of psoas abscess lying down where by any means it can be got into the erect position; it is a still greater mistake to "aspirate" it; for, unless with the desire to make it point more rapidly, there is no one sound reason for touching it at all. Open an acute abscess, and the temperature falls; open a chronic one, and the temperature rises to fever point; let Nature open the latter at the right time, and there is scarcely any constitutional disturbance.

To say that "Sayre's treatment" is as sound in principle as it is effective in practice, is only now to utter a truism; but every fact, I believe, that he has advanced in connection with it my cases fully and repeatedly verify.

### IRRITABLE SPINE AS AN IDIOPATHIC AFFECTION.\*

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THE terms irritable spine, rhachalgia, spinal irritation, notalgia, neuralgia spinalis, etc., are used indifferently in the text-books, with reference apparently, for the most part, to a secondary affection of somewhat vague pathological identity, of which the characteristic symptom is tenderness on pressure over the spinous processes of one or more of the vertebrae. It is described as being met with more frequently in women than in men; associated with pains in the mammae and other parts of the thorax; or in the ovaries, uterus, and other abdominal viscera. By others, it is viewed as a combination of myalgia and hysteria dependent on general debility. It has even been described as seated entirely in the ligaments of the vertebral column. By all it is regarded as essentially dependent on reflex action, having its original source in some peripheral irritation.

I have, of course, in common with my professional brethren, from time to time been consulted by patients in whom certainly localised tenderness in the spinal region, especially its lower segments, was present as an incidental condition accompanying uterine disorder, and, in a milder form, symptomatic of gastric ulcer; but, at the same time, I have occasionally met with cases in which I am quite sure this associa-

\* Read before the Southern Branch of the British Medical Association.