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Account of the Arabian Mode of Curing Fractured Limbs. Communicated to Dr Guthrie of Petersburgh, by Mr Eaton, formerly Consul at Bassora.

HAVING often seen much mischief occasioned by tight bandages, I am astonished the able surgeons of Europe have never discovered a better method of reducing fractured limbs than that at present in use; more especially as I observed amongst the Arabs one infinitely superior (in my opinion) in every point of view, and accompanied with every possible advantage and convenience, whether to the patient or surgeon.

However, to enable others to judge of it, I shall here relate a *case*, where I attended the reduction of the fracture, and saw the cure completed, although of that desperate kind which would scarce have been attempted in Europe without amputation.

An Arab, one of my soldiers at Benderneck, on the Gulph of Persia, having had his leg and foot fractured, and almost crushed to pieces, by the falling of a field-piece from its carriage upon him, which forced the ends of the bones through the skin, our European surgeon proposed immediate amputation above the knee as the only means of saving his life, and prognosticated the death of the patient, from his obstinacy in refusing to submit to the operation. The Orientals in general, particularly the inhabitants of those parts, will never consent to have a limb cut off; so that the people of the country undertook his cure in their own way, which succeeded beyond expectation, and which it is the intention of this letter to describe.

ARABIAN MODE OF TREATMENT.

After having transported the wounded soldier into an *airwan* (or open recess, arched above), and placed him on the floor, his leg lying on an *oiled mat*, they reduced the bones and shattered parts into as good a form as they could, to be inclosed in a case of gypsum or Paris plaster; an operation

they perform much in the same way as is practised by statuaries to take a cast of a limb, with some little variation to serve particular purposes in the cure, which is to be effected in a light case of this matter, to keep the parts in a proper position, and defend the wounds from insects, air, and external injury.

To accomplish this purpose, then, they first poured the Paris plaster under his leg, till it rose to such a height as to touch its whole lower surface and part of the thigh, filling up all inequalities, so as to form a sort of bed for the wounded leg to repose equally upon in all its parts; placing at the same time a few pieces of hollow reed at proper distances, and in such position, as to serve to conduct away through the plaster any *fluid* that might collect in the gypsum case, from the wounds, &c.

When this plaster cushion was become firm, which it does in a very short time, the whole leg was next covered with the same Paris plaster, so as to inclose it completely, and, on hardening, to form a light case or plaster boot, to keep the parts in as natural

a position as the shattered state of the leg would admit of, leaving small openings opposite to the projecting pieces of bone, to admit of their exfoliation.

They next made a sort of furrow or channel in the soft plaster, on the upper surface, the whole length of the shin bone, and directly over it, to receive such vulnerary fluids, during the treatment, as they think conducive to the cure, and which filter through the plaster or gypsum, to humect the leg at pleasure.

Lastly, To render this upper shell or covering more easily removed and changed during the cure, if necessary, to examine the state of the parts, &c. they make deep incisions into the soft plaster, both lengthways and across, though not quite through to the leg; by means of which, the upper case is removed without disarranging the limb, whilst the cushion or plaster bed on which the leg reposes, is seldom either changed or touched during the whole process, although the *oiled mat* under all prevents the adhesion of the gypsum to the floor, and makes transporting the whole

boot or plaster case practicable, should such a measure at any time be found expedient.

By this simple and curious Arabian practice, the soldier was perfectly cured. As to the duration of the treatment, the accident happened in May, and on the Colonel's return from a second expedition in September, he found the patient walking about, and enjoying the use of his leg, in spite of considerable deformity, the natural result of so terrible and complicated a fracture, where both the bones of the leg and foot were broken and splintered in a very uncommon manner, with several sharp pieces of them projecting through the muscles and skin.

The fluid employed was an ardent spirit drawn from dates, a species of arrac made in that country, poured into the trough or furrow over the shin bone from time to time, so as to filter through, and keep the leg always moist, till the wounds were cured.

The writer thinks, that an improvement on the Arabian plaster-of-Paris case would be, to make it with a moveable cover, or upper case, joined at pleasure to the lower, by means of holes in the edges of both, in
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the manner casts are taken; which would enable the operator to examine the state of the parts when he pleased, without breaking to pieces the cover every time he removed it, as is the practice of the Arabians, although they seldom touch the limb, till it be cured, except to pour on the spirit of dates.

I must remark, upon the curious communication of my ingenious friend, that the Arabians seem not to be unacquainted with the excellent effects of ardent spirits on wounds, a discovery the Europeans thought they possessed exclusively, and have long been drawing great profits from, under the name of *Arquebusade Water*, *l'Eau de Colonne*, *Baumé de Riga*, &c.; which are all nothing but spirit of wine disguised by some additional ingredient, which contributes nothing to its virtues, as I have found by using the spirit of wine with great success for many years past, without any admixture, in all cases of fresh wounds; and which generally cures without suppuration, where there is no considerable loss of substance.