NOTE ON *DRACUNCULUS MEDINENSIS*
(GUINEA-WORM)

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WHEN the 26th Madras Light Cavalry were reconstituted at Bangalore in 1903 the regiment was joined by a couple of squadrons of men from an Imperial Service Regiment in the north, and, after these men had been at Bangalore some months, many developed guinea-worms, our wards becoming filled with cases showing the worms in all stages of delivery. It took many days or weeks to wind out the worms and so many were broken in the operation that the number of men rendered unfit for duty became a serious matter. I consequently made enquiries as to methods employed for hastening the exit of the worm, since its rupture during extraction always led to severe suppuration.

An Indian Hospital Assistant advised me to feed the men with raw Indian sugar while starving and to allow them only sufficient water to keep them on a sugar diet. Some determined men partook of a pound or more of sugar a day. If possible this treatment was continued for a second day, and, in such cases the worm was usually out by the third day, it being found easy to wind out the worm which came away unruptured in all cases wherein the sugar diet was rigidly maintained. In short there were no failures, the worm being extracted in a few days instead of taking weeks to come out. The only cases of dracontiasis we had at Bangalore were among the northern men previously mentioned, and in practically all patients the worms occurred in the legs and feet. The men told me, however, that in the case of water carriers, who carry water in goat skins, the worm sometimes comes out on the back of the shoulder. That the worm occurs in this situation in water carriers is well known.

Dracontiasis, as far as I know, only occurs regularly in step well districts, the worm discharging its embryos into the well water where the larvae penetrate into and develop in *Cyclops*, which, when swallowed by man are digested, thereby liberating the worm which then attacks the vertebrate host.

In the Salem District in 1913-14, during the cold weather, we had numerous cases of dracontiasis, some men harbouring up to five worms at a time. The worms occurred most commonly in the legs but they also were found in the scrotum and subcutaneous tissue of the abdomen. Whereas the usual native practice of pouring water over the part was tried, the employment of sugar diet proved far better in hastening the elimination of the worm. Cases were

sometimes admitted in which a piece of worm had been retained since the previous year and in which, as soon as the guinea-worm season began, the worms became active and gave trouble. This was no doubt due to the maturing and escape of the embryos which presumably had lain dormant in the worm fragment during the off season. In these cases sugar caused a flare up of the tissues about the worm fragment and made it easy to lay the track open and wash out the remains of the worm, etc.

Whereas the adult guinea-worm's body usually lies extended beneath the skin, the worms which loose their way to water, so to speak, by becoming lodged in the scrotum or abdominal wall are found coiled in loops and are easily removed by cutting down upon them. Several worms measured at least five feet in length.

Sugar, taken as described, makes the patient almost unbearably thirsty and would appear to cause a condition decidedly uncomfortable to the worm.