

inexpedient. The application of warmth produces a vascular fullness of the part, and a relaxed condition of tissues which are in need of being toned up and strengthened; though if synovial inflammation of an acute kind follow on the sprain, leeches and fomentations may not improbably be indicated later on. For the promotion of the absorption of the lingering products of effusion, an alternation of douchings under streams of hot and cold water gives valuable aid. In no stage of the pathological process associated with a sprain should arnica solution be applied. One has met with instances in which painful and serious cellulitis has followed its use, even when there had been no previous lesion of skin. How is it that arnica first obtained its reputation in the treatment of sprains, and how has that reputation managed to survive so long?

A surgeon was driving his wife in the country when the pony fell, and the occupants of the carriage were thrown out into the road. When I saw him a few hours after the accident he was wearing his right arm in a sling, the elbow being at an obtuse angle. He said that, in the fall, the right hand (in which he was holding the reins) and the arm were doubled and twisted underneath him, and that though he was sure no bone had been broken, he could neither bend nor straighten the elbow on account of the severe sprain which it had received. He said that on his way home, and certainly well within an hour of the fall, on placing his left hand under the damaged elbow he found a soft swelling which seemed pretty near as large as an egg; his wife could also feel through his coat sleeve. Having taken the limb out of the sleeve and removed some water-dressings, universal and extensive effusion in the articulation was evident; the distended synovial membrane was specially bulging about the head of the radius. The intra-articular pain was intense. There was no contusion of the skin, nor any definite ecchymosis; movement caused great distress. Beginning at the fingers we firmly bandaged the extremity with a roller of domette (which from its softness and elasticity adapts itself with delightful evenness and comfort), drawing the turns which surrounded the swollen joint itself more closely and firmly for the sake of compression. Then, having bent to the proper form of the arm a padded flexible iron splint, and carefully adjusted it, the elbow was packed round with cotton-wool, and having enclosed all in a second and wider domette roller, and having got the patient to bed, we arranged the arm upon a pillow. The compression and security afforded by the roller and splint gave great satisfaction. On the second day we re-adjusted the splint and bandages, which had now become slack. Most of the tenderness and swelling had departed. Two days later, and at other intervals, we tightened up the bandage, finding always steady improvement. In ten days the splint was removed, and cautious use of the arm was allowed, but for the entire removal of the stiffness a course of shampooing

from a professional rubber was resorted to. The effusion which had come on so quickly, within an hour of the injury, was evidently not inflammatory in its nature; probably it consisted of synovia, blood and serum.

The other occupant of the carriage had severely sprained her left ankle, which was painful, stiff, and full of sero-synovial effusion. There was no fracture. The swelling was confined within the limits of the synovial membrane; it did not extend up above the external malleolus in the manner so characteristic of Pott's fracture. The treatment adopted consisted in surrounding the ankle with an even layer of cotton-wool, and in bandaging from the metatarsus upwards with a soft roller, the turns of which were continued well up the calf of the leg. The foot thus firmly encased was raised upon a pillow. In a few days all the excess of synovial fluid had disappeared, but the firmly applied bandage was still worn. In a week she began to use her foot, and was finding comfort in having it and the ankle rubbed with oil several times during the day. On the occasion of my first interview, the patient volunteered the important clinical statement—that after the accident her foot and ankle were fairly comfortable until her boot was removed. Probably if a bandage of plaster Paris casing could have been applied immediately after the accident, but little joint effusion or edema would have occurred. Certainly, compression of a recently-sprained joint gives results, both as regards expedition and thoroughness, with which those obtainable by the system of evaporating lotions can not be compared.

If the sprained joint be in the thumb or finger, much pain and want of pliancy may result. A small splint should be moulded on; firm compression with a pad of cotton-wool and a soft bandage exercised; and the hand worn in a sling—it should not be left free except for the cold douchings. A few days absolute rest is expedient.

Even long years after all the local signs of a sprain have passed away, a jerked or sudden movement of the joint, or a change in the weather, reminds the subject that the part is not absolutely sound. Nearly twenty years ago, I severely sprained my left wrist at football, and to this day it has not absolutely recovered. I cannot flex or extend it as I can its fellow. A sudden movement of it is often accompanied with audible crackling and discomfort. From a close and interested observation of this joint I feel convinced that in the crevices between the articular surfaces of the bones, and against the attached parts of the capsule out of the way of pressure, there are growing delicate and injected fringes of the synovial membrane. The synovial fluid is thin in quality and in excess of the normal amount; there are no adhesions inside the articulation, but there is probably some shortening of the extra-articular fibrous tissues, which were implicated in the inflammation—a shortening secondary to inflammatory thickening. Probably this shortening of