

scarcely any possible degree of flexion stopped the pulsation—while complete extension of the limb controlled it thoroughly. To-day, digital pressure was again tried for 12 hours, with the same result as before.

June 12th.—I cut down upon the artery and tied it, low down in Hunter's canal.

June 18th.—Wound dressed to-day, and found in excellent condition—nearly healed. Pulsation entirely gone—and swelling feels like a fatty tumour.

June 20th.—Stitches removed, and the linear wound dressed with boracic lint.

June 25th.—Dismissed—to return on the 28th and get out to the Home at Lenzie.

### III.—ON THE ADMINISTRATION OF IODINE *versus* IODIDE OF POTASSIUM.

By JOHN DOUGALL, M.D., F.F.P.S.G., *Lecturer on Materia Medica in the Glasgow Royal Infirmary School of Medicine.*

IN all works on materia medica and therapeutics the dose of free iodine is stated to be from one-eighth of a grain to one and a half grains given as tincture; while the dose of iodide of potassium ranges from two grains to two hundred and forty grains, though most writers make thirty grains the maximum dose. Moreover all seem to agree that whether pure iodine or iodide of potassium is given, the effects on the system are the same. Now if results can be had from a dose of say a quarter of a grain of free iodine, identical with those from a relative dose of iodide of potassium, say twenty grains, it is remarkable that no one seems to have considered that about three-fourths by weight of iodide of potassium is pure iodine. Thus in a twenty grain dose of iodide of potassium fully sixteen grains of pure iodine are given; the exact percentages of the two bodies in this salt being—Iodine 76.5, Potassium 23.5; the combining proportion of iodine being 127, and of potassium 39. Admitting then that the same therapeutic effects can be obtained from a quarter of a grain of pure iodine as from ten, or twenty grains of iodide of potassium, it is obvious that by giving

? how is "combining proportion" defined?

20 grains x .765 = 15.3

127 + 39 = 166

iodine *per se* the saving in this rather expensive drug might be very great. Any objections to the giving of pure iodine do not seem based on the smallness of the dose, but rather on its irritating properties. Now when pure iodine is given it seems converted during its passage through the blood either into iodides or iodates of the alkalies, or more likely into both, as its presence can only be shewn in the urine by adding some agent, *e.g.* chlorine or nitric acid which combines with the base, thus setting the iodine free, as it then strikes a deep blue on the addition of starch. When in place of iodine, iodide of potassium is given, obviously no such chemical combination takes place in the system, and not only so, but that the salt is not decomposed in the system is shewn by the fact that almost the entire quantity given may be recovered from the urine. Stille\* mentions that Scharlan recovered three hundred and forty-five centigrammes of iodide of potassium from the urine of a patient who had taken three hundred and fifty centigrammes of it. The remaining five centigrammes must have been distributed to the saliva, tears, &c. Also that Marschall gave a dose of one gramme and recovered nearly nine-tenths of it from the urine. In this respect iodide of potassium conforms to the law that all salts of the alkalies, excepting the neutral salts with a vegetable acid, pass undecomposed out of the system. Whatever may be the explanation of the therapeutic action of pure iodine, we think the same will apply to that of iodide of potassium. But when the large doses of the latter are compared with the small doses of iodine, with reference to their systemic effects, it is clear that the action of the iodine in the iodide of potassium is greatly enfeebled by the union, so that the greater part of the iodide of potassium given is simply wasted. Hence it seems that the administration of small doses of iodine is in every view preferable to that of large doses of iodide of potassium. The irritating property of a moderate dose of iodine—ten minims of the tincture equal to a quarter of a grain of pure iodine—may be sufficiently subdued by mixture with from

350  
cg =  
3.5  
gm

\* Therapeutics and Materia Medica.

1/4 grain ~ 16 mg

half a dram to a dram of aqua, chloroform, glycerine, or better still with syrup of tolu; but probably no substance disguises the taste of iodine so effectually as sweet milk. Ten drops of the former added to half an ounce of the latter, forms a bland, and by no means unpleasant mixture. This, when newly prepared, is slightly brownish-yellow, but in about an hour it becomes purely white. Moreover the iodine in this proportion preserves the milk from decomposition for several days, and that, too, in warm weather. Here then is a substance which keeps the iodine free, and yet, in the proportion mentioned, renders it as unirritating as a dilute solution of iodide of potassium. Might milk therefore not be substituted for potassium in the administration of iodine, and thus a great saving be effected in the consumption of the drug?

losing the brown color  
suggests reduction of I2 to I-

#### IV.—ON MOVEABLE KIDNEY.

By DONALD FRASER, M.D., Paisley.

WHILE making a post-mortem examination of the body of an emaciated old woman at Riccarton Asylum, Paisley, on the 31st January, 1878, I found the right kidney freely moveable. On drawing aside the intestines in the usual way, I observed that it lay higher up than usual, and I directed the attention of Dr Cunningham who assisted me to this. We found it freely moveable and could lift it with the gentlest pressure on to the top of the spinal column, and could also place it under the edge of the liver, in which situation during life it could have been easily mistaken for an enlarged gall bladder. This condition had not been diagnosed during life. The patient had been the subject of organic dementia, and no symptom or complaint directed attention to any abdominal tumour or other indication of moveable kidney. It is however to be remembered that this condition may exist without giving rise to much disturbance. This is the only case which I have observed post-mortem, and my friend the Editor of this journal informs me that with his large opportunities, he has met with only one case. I am