INFECTED MYOMA COMPLICATING PREGNANCY:

CAESAREAN SECTION FOLLOWED BY TOTAL
ABDOMINAL HYSTERECTOMY.

BY

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THE case here recorded is published to complete my series of Caesarean sections followed by hysterectomy for myoma. In this case the tumour could have been removed easily by myomectomy, but the infection of the tumour would have rendered myomectomy or simple Caesarean section a dangerous operation.

M. S., a primigravida, aged 28, married five years, was admitted to University College Hospital on June 12th, 1924.

Menstruation had always been regular, every four weeks, was free from shreds or clots, lasted three to four days, and required the use of two or three diapers a day; it had always been painful, and had occurred for the last time on September 24th, 1923. The patient complained of frequent and painful micturition, and of continuous pain in the lower abdomen and in the left or right side, according to her position in bed. The heart and lungs appeared to be normal. The abdomen was enormously distended owing to an excessive amount of liquor amnii; the foetus was in the first vertex position, the head above the brim. On vaginal examination the cervix was found to be displaced somewhat forwards by a firm tumour, which at first was taken for a dermoid. On further examination it was not certain that the tumour was not the breech of a second child, for the cervix was in the middle of the pelvis and not pushed forwards to the extent it would have been by a dermoid.

In order to clear up the diagnosis a thick sound was passed into the uterus; it went in front of the tumour, which was evidently a fibroid of the posterior lower segment. Caesarean section was performed on June 14th, 1924, before the onset of labour. The child, a girl weighing 9 lb. 10½ oz., was delivered in 106 seconds and cried at once. The uterus was then removed by total abdominal hysterectomy (Doyen's method), the peritoneum and ligaments being united by a purse-string silk suture; the vagina was left open. The abdominal wound was sewn up with through-and-through stitches of silkworm gut (tied over gauze), silk (continuous for the peritoneum and interrupted for the fascia), and silkworm gut for the skin. The operation lasted fifty-two minutes. The wound healed by first intention, and the patient made an uninterrupted recovery; the highest temperature was 100.2°, on the second day. The mother suckled the child, and left the hospital quite well on July 11th with her child, which weighed 10 lb. 10 oz. The uterus weighed 4 lb. 6 oz., and measured 9 by 6 by 4½ in. In the posterior wall of the lower segment is a fibroid measuring 4½ by 4½ by 4 in. The tumour, hardened by formalin, was seen on section to have a fibrous stroma with a pinkish-grey centre and a darker purplish-grey zone at the periphery (see Figure). Under the microscope the tumour was a necrobiotic fibromyoma. Immediately after removal it was examined bacteriologically by Dr. Goodhart. The tumour was seared with a hot iron and then cut into with a sterile knife; cultures were then taken from its substance; these gave a mixed growth of *Staphylococcus albus* and a diphtheroid bacillus.

It is well known that many necrobiotic fibroids are sterile, and can be removed with safety; some contain

virulent germs, and for these total abdominal hysterectomy is the safest operation. I have removed by that operation from a virgin a myomatous uterus in which the tumours enclosed abscesses containing a pure culture of streptococci, and a simple recovery ensued. On the other hand, a case treated by conservative Caesarean section, in which the tumour was infected with the *Bacillus welchii*, succumbed rapidly to gas gangrene.¹

My friend Dr. Philip D. Turner has published an admirable case where he saved a patient suffering from infected fibroids by performing total abdominal hysterectomy sixty-three hours after labour.² His case should be an encouragement to resort to panhysterectomy when sepsis develops after myomectomy, or conservative Caesarean section for myoma, has been performed.

The not infrequent presence of infection in myomata points to the necessity of caution in deciding on conservative operations, especially when they are associated with pregnancy. It would be a great help if a rapid bacteriological examination at the time of the operation could definitely decide on the presence and the nature of infection; but I am not sure that bacteriologists will assume this responsibility. The case now published completes the list of my hysterectomies for myoma complicating pregnancy; the other six have been published already.² All the seven mothers recovered, and all the children, except one dead before the operation, survived.

The first of the cases, operated on in 1892, was amputated, the stump being treated extraperitoneally; the remaining six were treated by total abdominal hysterectomy, which I have employed exclusively for the removal of the uterus during the last twenty-five years. That twenty-five years' experience has confirmed me in my opinion that total abdominal hysterectomy is superior to "subtotal" in all cases, whether complicated with pregnancy or not and whether infected or not.

The points in which it is superior were mentioned in these columns in 1902.⁴ It has, amongst others, the important advantage that the patient is freed from the danger of malignant disease of the cervical stump. This is a very real danger, of which I have

seen six examples, and I have referred to many others in a letter to this JOURNAL⁵ commenting on a paper by Dr. Fletcher Shaw, who had had three cases of cancer of the cervical stump after amputation of the uterus in the course of eighteen months. The following week Dr. Fletcher Shaw replied: "I opened this week's JOURNAL in the full expectation of finding a letter from Dr. Herbert Spencer, nor was I disappointed. I think, however, further discussion had better be left open until I have published my paper in full."⁶

This reply is less enlightening than would be the long-delayed further contribution by Dr. Fletcher Shaw to the discussion in these columns which I learned from a private

Drawing by Mr. Shiells of the hardened uterus in sagittal section, showing the tumour and the Caesarean incision.

letter from him in September, 1924, he is in a position to make. I asked him then privately, and I ask him now publicly, to make it.

REFERENCES.

† H. R. Spencer: *Tumours complicating Pregnancy, Labour, and the Puerperium*, Harrison and Sons, 1920, p. 19. * *Ibid.*, p. 32, and BRITISH MEDICAL JOURNAL, February 7th, 1920, p. 183. * *Proc. Roy. Soc. Med.*, vol. iii, 1910 (Obstet. and Gynaecol. Section), p. 61. * BRITISH MEDICAL JOURNAL, 1902, ii, p. 1131. * *Ibid.*, 1923, ii, p. 1184. * Dr. Fletcher Shaw kindly sent me a reprint of his paper in September of last year.

TREATMENT OF RHEUMATOID ARTHRITIS BY INTRAMUSCULAR INJECTION OF GUAIACOL, IODINE, AND CAMPHOR.

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THE result of the intramuscular injection of guaiacol, iodine, and camphor dissolved in oil has been satisfactory in nine cases of rheumatoid arthritis and articular fibrositis, other than the post-infective, gouty, and gonorrhoeal forms. The cases represented each phase of the disease from the early and the subacute to the rigid and deformed chronic case. The disorder is nowadays assumed to result from a chronic auto-toxaemia of alimentary system origin, and treatment is directed at the detoxication of the whole tract, the aim being to control infection, to prevent the formation of toxins, or to limit their absorption.

Of the nine cases mentioned, four had had carefully prepared auto-vaccine administered during many months, with little apparent benefit. All had had the various other methods of treatment usually employed. In one the use of the combined oil was eminently satisfactory; he was a man, aged 55, who for three years had suffered repeated exacerbations, and whose joints were so painful and stiff that he was almost completely helpless. He had twelve doses, ranging from 0.25 c.cm. of the oil for the first dose to 1 c.cm. after the third injection; each dose was given at an interval of three days; massage and movement were steadily employed during the whole course; the joint movements had become so free that he complained that his limbs "wobbled too much." Two years have passed since: he is walking about freely, and declares himself cured. In the case of a woman, aged 35, who was from the first bedridden, and as bad a case as I ever saw, the result was almost equally good; after a month's regular treatment with the oil she was, during the second half of each day, able to move about quite comfortably with the aid of a stick. Three other cases reported definite steady relief, and showed decided improvement in greater freedom from attacks, in diminished pain, and in being able to move about more easily. The remaining four declared slight benefit after a short course of injections, but they hardly had a fair chance because of the short time during which the treatment was in their cases available.

I do not suggest that the oil will displace vaccine or other treatment, but rather that it should be employed along with those other general and local means commonly used. It is likely to be most useful if backed by the other means at command—such as full diet, carefully chosen so as to fortify and, at the same time, to obviate any putrefactive or fermentative process in the intestine; generous allowance of fluids given night and morning and between meals, with, at all times, alkali added; saline laxatives; colon lavage, which can be quite well carried out in the patient's own home; and kaolin, with an intestinal antiseptic by the mouth, especially if there is diarrhoea. For the articular lesions, gentle massage and passive movement, resistance exercise, and ionization, may each be used to get the best out of the oil. In the management of attacks the oil seems to be of great use, especially when the joints are rested by partial or complete immobilization, and other methods, such as active hyperaemia, are used. It appears to do good in most cases and harm in none. It seems to me that the oil will be of value where vaccine has failed to detoxicate effectively because of some masked or latent focus of infection having been missed or overlooked, though carefully searched for; it may prove particularly useful where an auto-vaccine appears, after prolonged trial, to

have failed. My personal opinion is that if such a presumed carefully prepared vaccine does fail after four months of fair trial, it is waste of time to continue longer with it; either a fresh search should be made or this guaiacol-iodine-camphor substituted. A patient is too often allowed to drift after vaccine has been used unsuccessfully. If, on the other hand, every source of infection can be well controlled or removed, then the oil given intramuscularly will, I believe, be the best treatment to overcome the later effects of the toxæmia.

I had previously used an iodized oil, but the result was not good; then a guaiacol-iodine oil which was prepared proved to be much too painful and irritating in use. I now use exclusively an oil obtained for me by Duncan, Flockhart and Co. which contains the three drugs; it is non-irritating, is exact as regards strength, and it answers all requirements. It is made up in ampoules, each containing 10 per cent. guaiacol, 10 per cent. iodine, and 5 per cent. camphor added for its analgesic and stimulating effects, these being useful particularly in frail and depressed persons. The injection is given into the gluteus muscle, or, better still, deeply into the vastus externus about the middle of the thigh, a sterile wide-bore platinum needle being used; the same procedure is repeated every second or third day, a fresh site being chosen in the same region of the thighs alternately. It is rather important to treat the syringe carefully; a Record answers well, and after use it should be cleansed with, and stored in, methylated spirit. My practice has been to boil the syringe and needle in a small copper sterilizer for ten minutes before going out in the morning, then to lift out the tray containing syringe and needle, and decant off the water. The ampoule of oil is next placed in the sterilizer so that the heat may liquefy the oil, the tray replaced, and the whole carried in the ordinary handbag. The injection can now be made while the syringe and oil are hot and before the patient gets out of bed. The method has the advantage of being handy and time-saving. The ampoule should be handled gently—if the oil is split the odious clinging smell and trail of guaiacol will ensure future care in its use. Between exacerbations, and to encourage the patient to move about so as to overcome stiffness and adhesions, the injections may equally well be made in the consulting room. Three syringes and three needles may be carried in a rack at the same time, providing syringe and needle are not returned to the sterilizer after use. In no case did I find any serious general reaction or after-effect; there was some pain and stiffness in and around the affected joints twenty-four hours or so after the injection, with malaise and slight rise of temperature; one came to expect it, but it was transient, and there was no evil effect other than this—no discomfort of any consequence from local reaction; in no case did iodism occur. The urine should be tested and, as far as possible, disease of the kidneys excluded before commencing the treatment, and again, occasionally, during its continuance. By intramuscular injection the full measured dose finds its way promptly into the circulation, and no nodule can be felt at the site of injection next day or afterwards. The highest dose given at any one time was 1 c.cm.; 0.25 c.cm. was injected to begin with, and the scale quickly mounted till 1 c.cm. was reached; this quantity was then gone on with, being repeated every third day, or, when thought necessary, every second day.

It is well known that rheumatoid arthritis needs prolonged management, and is difficult to treat successfully or expeditiously: not one of the drugs employed in its treatment is curative, guaiacol being the only generally useful one amongst them. The disease is commonest after 40 years of age, in poorer women especially, at a time of life when they should begin to be able to command better health and some rest and leisure; such cases are pathetic to see, and most of them suffer their disability with amazing fortitude.

In those who cannot afford spa treatment, or who, because of the disability consequent upon pain, adhesions, and deformities, are unable to proceed to a hospital outpatient or electrical department for the special methods there available, the method by intramuscular injection of guaiacol-iodine-camphor oil is particularly useful; it is