branches everywhere undefinable on the inner surface of the lower section.

After treatment the girth of legs, at same mesial, measured 9½ and 9 in. respectively; the structures were soft and pliant, colour more normal and no longer tender, and outline of the same venous system easily delineated, and, with the exception of a few scattered indurated valvular pouches, the lumen of the vessels appeared to be more or less patent throughout the lower section of both legs; while over the sites of former ulceration extensions of vascular branches are plainly discernible injecting the waxy white cicatricial coverings with fine arterioles and network of venules from around their marginal borders.

These, then, comprise the salient features of the comparative changes which had been effected, in this instance, by means of a renewal of the dressings, on an average of once in ten months, for close on seven years, when the dressings were tentatively discarded in favour of ordinary roller bandaging support, which the patient continuously wore, in her household work, during the remaining thirteen years of her life, without any threat of recurrent ulceration or sign of varicose stagnation in the interval.

I think we have ample evidence here suggestive of the

appliance being no ordinary implement of a mechanical contrivance, and that the amalgam is potential of some therapeutical virtue the unusual results in this instance would seem to imply. And what has been accomplished in this instance is but a replica, of outstanding dimensions, of the imprimatur of restorative benefactions conferred upon the recipients in each of the other sixty-nine cases of more or less chronic varix. And what is true of chronic cases equally applies to those of the acute and subacute classifications; and I know of no other form of treatment which gives such speedy relief to the agony of the victim of "tennis leg" as the envelopment of the limb in a glyco-gelatin dressing.

Whatever may be the explanation of its rationale of action, if it were only for its *par excellence* efficiency in chronic varix and acute phlebitis of the leg (whereas in the former it stands alone, and in the latter it has no compeer, as far as known, in present-day therapy) the zinc glyco-gelatin appliance should merit an abiding place in the armamentarium of every well equipped general practitioner.

A NOTE ON TWO CASES OF A FOREIGN BODY IN THE URINARY BLADDER.

BY

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THE two cases here recorded are of interest as they illustrate some of the complications which may result from the presence of a foreign body in the bladder.

CASE I.—Perforation of Bladder Wall: Haematuria: Perivesical Abscess.

The patient, a girl aged 19, was admitted to the London Hospital under Dr. Cecil Wall, who kindly referred her to me. She stated that she was quite well and free from symptoms until five days previously, when she noticed that the urine was deeply stained with blood. The haematuria persisted until her admission to hospital. She also complained of pain and tenderness in the left iliac fossa, and slight pain on micturition in the hypogastrium and urethra. She said that the frequency of micturition was not increased.

For the first two nights after admission her temperature was raised to 99.2° and 100°, but subsequently became normal.

On abdominal examination a hard, tender fixed lump was felt in the left iliac fossa immediately above the inner half of Poupart's ligament. A skiagram showed a rod-shaped body lying transversely in the bladder, and projecting beyond the brim of the true pelvis on the left side. Cystoscopy confirmed the skiagram, and the foreign body was recognized as a penholder, painted with blue and red stripes, and encrusted with phosphates. There was oedematous cystitis on either side where it was in contact with the bladder wall. The urine was deeply stained with blood.

Suprapubic cystotomy was performed and the penholder removed. It was 13 cm. long, made of wood, and was firmly fixed. On the left side it had perforated the bladder wall, and its point extended into the indurated swelling above Poupart's ligament. The swelling was incised, and a small amount of pus escaped. The bladder and abscess were drained. The wound healed rapidly, and the patient passed all her urine naturally on the tenth day after operation.

CASE II.—Large Vesical Calculus: Incontinence.

The patient, a single woman, aged 59, was brought to the cystoscopy department of the London Hospital on June 27th, 1924, complaining of incontinence of urine. She had been perfectly well until June, 1923, when she found that she could not control her bladder, and had great frequency of micturition. She wetted her bed at night and her clothes by day. This gradually became worse, until the urine dripped away continuously. She was given a portable urinal, but it was not satisfactory, so that she seldom went outside the house. During the last six months she had lost

a great deal of weight and strength, and had suffered considerably from thirst and a dry mouth. The bowels were constipated, with occasional attacks of diarrhoea. Her urine had been thick and offensive for some time, but there had been no haematuria.

The patient was a thin, wasted, rather excitable woman. She was somewhat unstable mentally, for she had unaccountable fits of giggling, and was very vague as to the history of her illness. Her friends stated that she had "always been a bit queer." The tongue was dry and furred.

Abdominal examination revealed a round, hard mass immediately above the pubes. This mass was also felt through the anterior wall of the rectum. Examination of the external genitals showed great hypertrophy of the labia minora. The urine was alkaline and extremely offensive; it contained a thick white deposit of pus and phosphates, and one-third volume of albumin. Clinical examination was otherwise negative. The systolic blood pressure was 104 mm. of mercury, the diastolic 70 mm.

Skiagrams of the pelvis showed a large calculus in the region of the bladder, with a long narrow shadow of greater density running through it transversely.

Operation.

On July 1st, 1924, suprapubic cystotomy was performed. The bladder was adherent to the wall of the pelvis on either side and anteriorly to the back of the pubes, while superiorly the peritoneum was stripped off with great difficulty. The bladder was entirely occupied by a phosphatic calculus surrounding the foreign body. The stone crumbled under the fingers, and was removed piecemeal. The foreign body was wedged firmly across the bladder, and could not be removed until the bladder incision had been extended laterally to the right.

On examination of the empty bladder a pouch was found on either lateral wall, corresponding to the extremities of the foreign body. Two drainage tubes were placed in the bladder,

one for irrigation and the other for drainage, and the bladder wall was closed round them with catgut. A glove drain was placed in the cave of Retzius.

The accompanying figure shows the foreign body and the fragments of the stone. The foreign body proved to be an ivory penholder, 9.6 cm. long and 0.55 cm. in diameter. The fragments of stone weighed 44.1 grams and the foreign body 6 grams, so that the total weight was rather more than 1½ ounces. The stone was composed of calcium phosphate with a trace of oxalate.

Convalescence was slow but uneventful, and the patient was finally discharged from hospital on August 12th, six weeks after the operation, with the wound healed.

On September 26th she came back with a history of occasional leakage through the suprapubic wound. The wound, however, appeared to be soundly healed, and she was discharged after six days.

On October 24th she was seen again in the cystoscopy department, feeling and looking very well. She could walk about well, and had perfect control over her bladder. She was able to go all night without passing urine, and the average interval between the acts of micturition during the day was four hours. The bladder capacity was 6 ounces.

The usual complication of a foreign body in the bladder is, of course, a deposition of phosphates which gradually forms a calculus with the foreign body as its nucleus; but in the first case the foreign body gave rise to a comparatively rare complication—namely, the perforation of the bladder wall with fairly profuse haematuria and the formation of a perivesical abscess.

In the second case the most striking symptom was the incontinence, for which the patient had to wear a urinal. Further points of interest, apart from the size of the calculus, were the adhesion of the bladder to the pelvic wall and the impaction of the foreign body in the bladder, so that it could not be removed until a very large opening had been made.

That the wound should have taken six weeks to heal soundly was not unexpected in view of the foul state of the urine, the severity of the inflammation of the mucous membrane, and the size of the bladder incision.

The remarkable power of recovery latent in the bladder wall is illustrated by the fact that the patient could easily retain 6 ounces of fluid and empty the bladder completely some fourteen weeks after the wound had healed, although she had previously been incontinent for a year.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

CELLULITIS OF THE SCALP TREATED BY INTRAVENOUS COLLOIDAL SILVER.

I THINK that the following case is of interest as it would appear to indicate a simple treatment for a serious condition.

On November 29th, 1926, a woman, aged 62, was admitted to Andover War Memorial Hospital suffering from a scalp wound in the occipital region (about 1½ in. long) and a mild degree of concussion. For the next few days she ran a high evening temperature and looked very ill. She complained only of severe headache and had all the appearances of suffering from a toxæmia against which she was incapable of fighting. A thorough general examination failed to reveal any definite cause for her condition. The only fact noted was that the wound, though not discharging, was gaping and showing no signs of healing.

On December 6th the diagnosis of the patient's condition was made obvious by the appearance of an isolated patch of cellulitis over the forehead. She looked so ill as to appear almost moribund. On the following day the affected area had extended, although the inflammation seemed, if anything, less intense.

An intravenous injection of 10 c.c.m. of colloidal silver was given. There was a striking and immediate improvement in the patient's condition, and two days later the cellulitis had almost disappeared, the tongue was clean, and there was no headache. The edges of the wound, which was now discharging slightly, looked healthy, and had approximated. The treatment was repeated, and the patient made an uneventful recovery, being discharged well on December 21st.

So far as I am aware, colloidal silver has not been previously used in a similar case.

Andover, Hants.

R. S. WEIR, M.B., Ch.B.

POTASSIUM SILVER IODIDE IN THE TREATMENT OF GONORRHOEA.

THE double iodide of potassium and silver ($KAgI_2$) is a crystalline substance readily soluble in a small quantity of water. On dilution the solution begins to precipitate silver iodide, but the precipitation is not complete until a fairly high dilution is reached.¹ The precipitated silver iodide is in a very finely divided condition and a part of it is in a colloid state. It has a tendency to creep up and adhere tenaciously to the sides of a test tube, and would presumably creep into the crypts and ducts of the urethra and adhere to them and to the gonococci found there. The unprecipitated portion is still in the form of a double salt and in a state of molecular dispersion. In this condition it would presumably diffuse through the walls of the cells, and on being further diluted by the tissue fluids would precipitate more silver iodide inside the tissues. The decomposition of the double salt on dilution tends to be reversed by the presence of excess of potassium iodide.

The potassium silver iodide was prepared as described by Mellor (*loc. cit.*). One part by weight of crystallized

potassium silver iodide and four parts of potassium iodide were intimately mixed and dissolved in water as required in the strengths of 0.5 gram, 1.0 gram, and 1.5 grams, in 20 c.c.m. in each case. Each of these dilutions contains a fine suspension of silver iodide, some of it in a colloidal state, and a true solution of the double salt.

Method of Treatment.

Of the above solution 20 c.c.m. is placed in a glass syringe. The tip of the syringe is introduced into the meatus and the solution is injected slowly and steadily, with the fingers grasping the glans to prevent escape of the fluid. At the same time the patient is asked to keep his nostrils closed and breathe freely through the mouth. After injection a soft bandage is applied over the glans tight enough to prevent the injected fluid from coming out. The bandage can be removed after fifteen to thirty minutes. The injection distends the urethra fully, opening out the crypts and recesses, and a portion perhaps enters the bladder. The solution seems to reach the prostate and seminal vesicles, as on massaging the prostate and vesicles two or three days after the injection the expressed fluid is seen to contain some silver iodide. In acute cases the anterior urethra is washed out twice, using 10 c.c.m. of the first strength each time, before the injection of 20 c.c.m. is given, and the bandage applied. In chronic posterior urethritis an injection of the second strength is given after urination, with prostatic massage, and later in the treatment the third strength is used. The treatment has the advantage that the injections need only be given twice or thrice a week, as the silver iodide persists in the urethra and continues to exercise its antiseptic action.

Results.

Under this treatment the discharge decreases very rapidly and after about six injections disappears, though in many cases on prostatic massage a few extra-cellular diplococci may be detected microscopically in a smear. After about twelve to fifteen injections gonococci completely disappear, and even after provocative treatment and prostatic massage a smear shows their absence. Cases which come with a stricture do not readily respond unless the stricture is dilated prior to the injection. Cases of prostatitis, vesiculitis, and cystitis respond readily. A case of gonorrhoea with acute retention of urine was treated by hot hip baths with repeated catheterization and injections. The patient recovered rapidly.

I wish to thank Major Clive Newcomb, I.M.S., chemical examiner to the Government of Madras, for his guidance and help, and Lieut.-Colonel R. B. B. Foster, I.M.S., superintendent of the Government Royapuram Medical School, Madras, for permission to publish this note. I am also indebted to my assistants, Mr. N. Raghavayya, assistant lecturer in chemistry, Royapuram Medical School, Madras, and Dr. C. R. Krishna Pillay, for their active co-operation with me.

[Dr. Naidu sends notes of ten cases: in all of them gonococci were detected microscopically in smears, the injections were well borne, and none of the patients complained of any considerable pain.]

Madras.

S. RAJAGOPAL NAIDU, B.A., M.B., B.S.

GASTRECTOMY FOR SARCOMA OF THE STOMACH.

SARCOMA of the stomach being a fairly rare condition, the following case may be of interest.

A man, aged 27, was admitted under my care to the Victoria Hospital, Keighley, on December 12th, 1926, with a history of indigestion extending over three months. On admission he was much emaciated—the emaciation, he stated, had become very apparent during the previous four weeks. He had severe pain almost immediately after food (even liquids), and there was frequent vomiting. On examination the abdomen was much retracted and a large sausage-shaped tumour could be readily seen and palpated in the epigastrium. The tumour was fairly movable and very tender, even on the slightest pressure.

On December 17th I performed gastrectomy. The tumour was found to involve practically the whole of the stomach, there being only a very small portion of the cardiac end apparently free from disease, which made the anastomosis between the resected end of the stomach and the jejunum rather difficult. The tumour did not involve the duodenum, but there were many enlarged glands in the gastro-colic and gastro-hepatic omenta. One hard nodule was also detected in the liver.

After operation the usual treatment to counteract shock, etc., was carefully carried out, and from the third day after operation

¹ Mellor, *Inorganic and Theoretical Chemistry*, vol. iii, p. 432.