into the stomach and one-thirtieth of a grain of strychnine and one-fiftieth of a grain of digitalin were injected hypodermically. The patient was visited again in the evening; her condition was unchanged except that the corneal reflex had returned. The catheter drew off about three pints of clear urine. The bowels had not acted. On the 18th she was again visited. She had roused sufficiently in the night to swallow some coffee. Three pints of urine were drawn off by catheter and a pint of hot milk with two minims of croton oil was passed by a tube into the stomach. The bowels had not opened. The patient was surrounded by hot-water bottles. In the evening the bowels had not opened and her condition was unchanged. The pulse was 100, the respirations were 15, and the temperature was 98°. Hot milk and three minims of croton oil were given by a tube which was almost immediately followed by vomiting. Some of the gastric contents being inhaled necessitated energetic treatment to restore breathing and to relieve cyanosis, under which treatment the patient roused considerably but soon relapsed into lethargy. An enema of soap with five minims of croton oil resulted in a small evacuation, chiefly enema, but some fæcal matter was present. Again three pints of urine were drawn off and a hypodermic injection of digitalin and strychnine was given as before. The patient was visited at 9 P.M.; half a pint of urine was drawn off. Her condition was unchanged. On the 19th at 10 A.M. she was cyanosed. The respirations were 30, the pulse was 112, and the temperature was 103 5°. No physical signs of pneumonia were detected but her condition was probably affected by the inhalation of the gastric contents on the previous day. She was rather more collapsed and still unconscious. She had had a nutrient enema of egg and milk which she had retained. Hypodermic injection was given as before. At 1 P.M. the respirations were 40, the pulse was 130, and the temperature was 103°. One pint of urine was drawn off One-thirtieth of a grain of strychnine was given hypo dermically. At 6 30 P.M. the respirations were 44, the pulse was 130, and the temperature was 103·8°. Three quarters of a pint of urine were drawn off. One-thirtieth of a grain of strychnine and one-sixtieth of a grain of digitalin were again given. The patient showed a slight return of consciousness. She had retained the nutrient enema of milk and egg and had spoken a few inarticulate words during the day. After the hypodermic injection the respirations fell to 30, the pulse to 112, and the patient had a better appearance. On the 20th the respirations were 32, the pulse was 112, and the temperature was 103·8°. One pint of urine was drawn off. The cardiac action was much stronger. The radial reflex and the knee-jerks had returned. The patient now appeared to notice her surroundings. The bowels had opened slightly. The nutrient enemata were retained. A certain sweet chloroform-like odour had been noticed in the breaths since the first visit and lately also in the urine. The bladder remained in an atonic state and air entered after the urine was expelled by pressure on the abdomen. At 6.30 P.M. the pulse was 90, the respirations were 20, and the temperature was 100°. She was slightly restless and had been trying to get out of bed. She had passed urine under her and the bowels had opened slightly. She had spoken incoherently during the day at intervals. On the 21st she had a restless night and was more conscious. The pulse was 80, the respirations were 20, and the temperature was 99°. The catheter drew off one and a half pints of urine. The bowels had opened slightly. She retained the nutrient enemata and had taken fluids by the mouth. At 6 P.M. the pulse was 80, the respirations were 25, and the temperature was 99 4°. She was steadily regaining consciousness. Her speech was staccato and cerebration was slow. The catheter drew off three quarters of a pint of urine. On the 22nd the pulse was 80, the temperature was 98·4°, and the respirations were 15. She had been upon the stool but the bowels had not opened. She still took food by the mouth and had passed urine normally. She volunteered the information that she swallowed the above amount of sulphonal at 11 o'clock on the evening of the 16th with suicidal intent. On the 23rd the pulse was 80, the respirations were 15, and the temperature was 99 4°. The bowels had opened. The catheter drew off three-quarters of a pint of urine; she was menstruating. She was much quieter and taking food fairly by the mouth. Four drachms of sulphate of magnesium were given in the morning and repeated in the evening. On the 24th she was still improving. The bowels had opened twice. She passed urine on the stool; the catheter drew off four ounces only. She was taking food better. The pulse was 80 and the temperature was 98·4°. She slept well. Speech and cerebration were very little altered. On the 25th she had markedly improved. Her speech was clear and cerebration was most active. The bowels were well opened; urine was passed naturally. She was taking food much better and she slept well. From this day her convalescence was uninterrupted as regards the sulphonal poisoning and on Jan. 2nd she was sent to an asylum.

As regards the treatment of the case, with no definite data to go on, and a strong presumption of her having taken sulphonal, washing out the stomach seemed to be the right step, although, as it subsequently turned out, it was perhaps of little use as some 12 hours had already elapsed. Although the large enemata were retained they doubtless helped to eliminate a large amount of the poison by the kidney, and as for medicine, strychnine and digitalin seemed to be the only drugs indicated. The inhalation of the stomach contents was an unfortunate incident which, however, did not seem to affect the case very seriously, although septic pneumonia at one time threatened to complicate a most intractable case. Coma, absence of the reflexes mentioned above, including atony of the bladder and the bowel, were the most striking features in the case. The accidental inhalation was no doubt due to this condition also. The heart sounds were very feeble, more so than the pulse would suggest. Her condition at the first visit gave very little clue to the cause and it was only on the strong presumption of what had happened that sulphonal poisoning was diagnosed. Her recovery, however, was complete and happened more or less abruptly on the eighth day. No anorexia or constipation remained. Her mental condition also remained unaffected. Although when first seen her condition appeared to be critical, if not even hopeless, in the light of her subsequent recovery one is apt to regard the danger incurred with less fear. Other cases reported appear to have been followed by protracted evil effects and to have recovered very slowly. Examination of the urine showed a slight trace of albumin, no sugar, 4·5 per cent. of urea, and no blood. It was clear, light-coloured, and of specific gravity 1030; it had no smoky tint. The absence of a spectroscope precluded the test for hæmatoporphyrin. I should be glad to have suggestions as to any antidote for sulphonal if such exist.

Jersey.

A CASE OF ACUTE TRAUMATIC CHOLECYSTITIS.

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AND
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A MAN, aged 59 years, was walking to business on Dec. 29th, 1903, when he slipped on some ice and fell. The history of how he fell is not quite clear, though he himself asserted that it was "all his length on his right side." He complained at the time of some pain but went to business and seemed no worse for the accident until Jan. 3rd, 1904, when he complained to his wife that his side hurt him, but he did not take much notice of it. On the 5th his bowels acted as usual in the morning and again at about 2 and 4 o'clock in the afternoon. (The sequel suggests that these actions were melænic.) Soon after the second action he was sick and in a little while was seized with a severe pain in the abdomen. He was shortly afterwards seen by Dr. Mowbray Henderson who administered morphia. The pain continued all that night sufficiently severely to keep him awake. He vomited on the morning of the 6th and again on the following morning but not subsequently. His bowels never acted after the loose motions on the 5th notwithstanding the administration of two enemata on the 6th and two on the 7th; the second enema on the latter date brought away a little fæcal matter. On the 8th the abdomen began to swell and Dr. Henderson asked me (F. J. S.) to see him at 1 P.M. as a case of intestinal obstruction. I found the patient lying in bed quite quiet and sensible; his face was very congested, almost blue, like the face of bad "bronchitis with emphysema." The pulse was

somewhat full, 117 per minute, with rather *plus* tension if anything and not the thready pulse of either asphyxia or peritonitis. The abdomen was full, round, and somewhat distended, offering no good opportunity for discovering much by palpation, but there was very marked tenderness just below the liver in the area corresponding to the gall-bladder. Percussion here also caused much pain but revealed no dulness—in fact, to sum up, one had a picture of intestinal obstruction without much guide to its seat or causation. I accordingly arranged to see him again in the evening with Mr. C. W. Mansell Moullin. I found the condition unchanged except that the pulse was now 120 and had lost its tension and fulness. His temperature had, by the way, since the 5th been hovering between 99° and 101° F.

Mr. Moullin decided to operate, though he could not frame a very definite diagnosis. We discussed the question of slight laceration of the liver or the gall-bladder, but rejected it from the absence of jaundice and from its general improbability. He opened the abdomen in the middle line and found—absolutely nothing, except one small omental hæmorrhage, so he then opened the cæcum by another small incision and fixed a catheter in the ileum. During the 36 hours that the patient survived a certain amount of black fæces—melæna—escaped from this tube, but he got weaker and died at about 8 A.M. on the 10th.

The necropsy was performed at 3.30 P.M. on the same day. The lungs and the kidneys were quite sound and the heart too, except for marked degeneration of the aorta (the valves were quite sound and the muscle was good). The intestines, too, were sound and there was no peritonitis observable by the naked eye, though as the intestines were fuller than usual I suspect there was a loss of tone in the peritoneal coat. The liver was a trifle fatty but otherwise healthy, and the only pathological change was with the gall-bladder. This externally was seen to be intensely inflamed, of a brown colour, and with patches of lymph scattered over it. It was moderately distended and the connective tissue round it was dark in colour and evidently not healthy. On cutting it open the distension was found to be due to what was very evidently blood, though considerably altered by decomposition. The lining membrane was more or less necrotic and soaked in blood and discoloured with the soaking. There were no gall-stones and no appearance whatever even faintly suggestive of a growth.

In my experience such a case is unique and I think it must be at any rate very rare. An interesting question arises as regards the precise cause of the paralytic obstruction of the bowel, whether it was due to a nerve influence through the bruising of the gall-bladder or whether it was owing to the toxæmia. Judging from the absence of signs of rapid decomposition at the necropsy I should incline to the former view, though it must be admitted that the examination was carried out very soon after death.

Another interesting point is how the gall-bladder came to be the only viscus that was bruised. There was no external bruising of the skin over it, so that considering the nature of the accident—a simple fall on a level road—it is not likely that the injury was due to direct violence, and yet the fact seems very difficult to explain upon any other hypothesis, as the gall-bladder is such a yielding viscus.

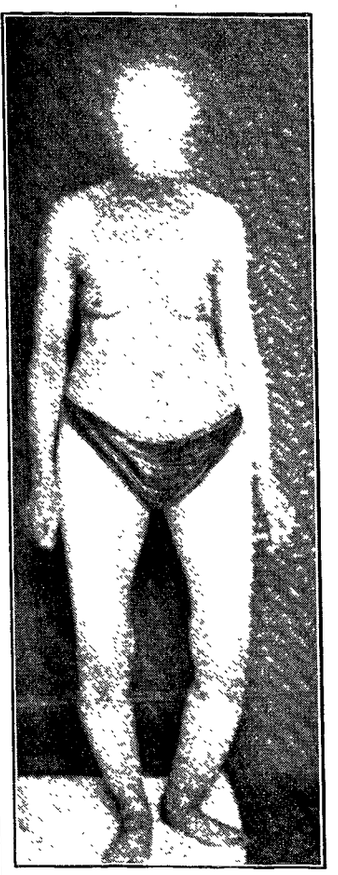
TWO CASES OF OSTEITIS DEFORMANS IN ONE FAMILY.

BY WALTER J. KILNER, B.A., M.B. CANTAB., M.R.C.P. LOND.

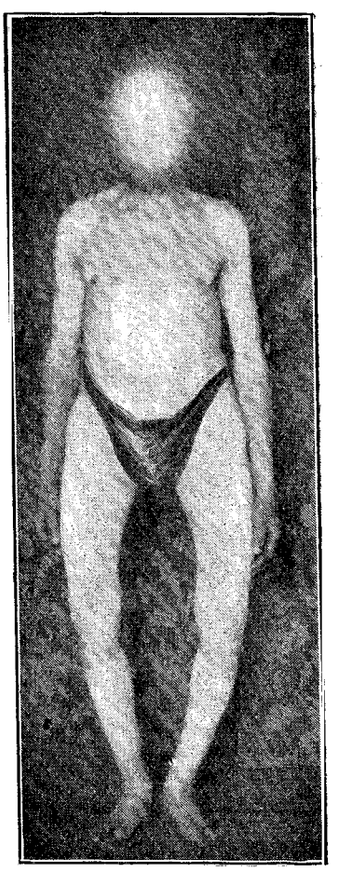
THE rarity of this disease is a sufficient excuse for giving a short account of two cases lately seen by me. They are brother and sister who have both passed middle age.

CASE 1.—The patient is a married woman, 69 years of age, who has had three sons, all of whom are alive and healthy, and two daughters, one being married with three children, and the other one having died during childhood. Until five years ago she enjoyed excellent health, her only illnesses being a severe miscarriage 30 years ago and an attack of sciatica seven or eight years ago. During her first pregnancy her left leg swelled and was dusky in colour, the condition being, as far as I can glean, due to varicose veins. At the present time the superficial veins of that leg are varicose. Previously to the last five years her figure was erect and she could not have measured less than 5 feet 7 inches—most likely an inch more. This is only approximate as she was considerably taller than a friend who is 5 feet 6½ inches. Now, however, her height is only 5 feet 1⅛ inches when she draws herself upright, which she is able to do only for a very short time. Her present illness began insidiously with what were thought to be "rheumatic pains." As nearly as she can remember the parts affected were attacked in the following order: the left leg, the right leg, the knees, and the soles of the feet; some short time afterwards the spine, first in the lumbar region, then between the shoulders, and last of all the right arm, the shoulders, the hips, and the clavicles. The pain was more or less continuous with nocturnal exacerbations, when the hips and legs were the seats of the greatest pain. Frequently she had very severe attacks lasting some hours or even a day or two. She had lost flesh, being now very thin instead of weighing 12 stones. When undressed she presents a remarkable figure (see Fig. 1). There is marked kyphosis, the

FIG. 1. FIG. 2.



Female figure.



Male figure.

back of her head following the same curve as the spine while she is standing at rest. She is, however, able to raise her head, but it soon drops again. The shape of her head is peculiar and the cranial bones are enlarged, although she does not seem to have noticed this herself as the thickening has proceeded gradually. The lumbar curve of the spine is exaggerated but this is to a great extent masked by its being sunk between two ridges of flesh. There is no lateral curvature Her clavicles are thick and enlarged irregularly. Her ribs seem to yield to pressure more than they ought if quite healthy; however, their shape remains unaltered. Her right arm is not so straight as her left, nor can she extend it fully at the elbow-joint. Her pelvis seems to be unaffected. The most marked deformity is in her thighs and her legs, the former outwards and forwards, the latter having similar curves, only the forward one being more marked, especially in the left leg. All the bones of the thighs and the legs are thickened irregularly but not all to the same extent. Taking the left tibia as an example, on March 3rd the whole bone was enlarged with indurated patches on the upper and lower thirds. These swellings did not include the whole circumference but were on the anterior and outer surfaces. They were diffuse with no