arose about this case, and the medical officer of health was informed about it on April 23. A complement-fixation test of the pustular content was negative for vaccinia.

Dr. J. P. Marsden, Home Office Consultant, who saw the patient on April 24, was of the opinion that this was a case of accidental vaccinia, which he thought was rather rare. The accompanying photograph, taken on the same day, shows the typical appearance of the lesions and the facial oedema. A repeat complement-fixation test on egg membrane on April 27 proved positive for vaccinia, and so was

Photograph showing typical appearance of lesions.

an egg culture. Crusts began to form on the pustules on the 27th and the oedema was beginning to subside. The crusts separated about a week later, and small slightly depressed scars were left on the cheek and nostril.

This was a definite case of Kaposi's varicelliform eruption, as it fulfils the two requirements: (1) it was acquired by contact with a vaccinated person, and (2) it was definitely due to vaccinia virus, as proved by the complement-fixation test and egg culture.

COMMENT

Considering the large number of vaccinations performed, the number of reported cases of accidental vaccinia is comparatively very small; and although this case ran a benign course, the possibility of serious complications and sometimes of a fatal issue should be borne in mind. Finn *et al.* (1952) report a case of accidental generalized vaccinia in a child 6 months old, contracted from another child admitted thirteen hours previously into a cot adjacent to the patient's and who had had an active vaccination sore for ten days. The patient developed lesions twelve days later and died after ten days, in spite of treatment. Good and MacLachlan (1950) report a case of accidental generalized vaccinia in a boy of 6, who played in bed with a recently vaccinated infant; the boy died in hospital nine days later from vaccinia.

Vaccinia may also develop in a person who has been vaccinated, as illustrated in a case reported by Blattner (1951) of a child who developed impetiginous lesions after a smallpox vaccination. Vaccinia changes were demonstrated in the material taken from the lesions fifteen days after vaccination. According to Blattner *et al.* (1946), humoral antibodies to vaccinia begin to appear at the end of the first week following cutaneous vaccination; they increase in amount during the second and third weeks and reach their maximum at the end of the third week.

Bigler and Slotkowski (1951) maintain that the microscopical changes in vaccinia are identical with those of variola. It is believed that vaccinia and variola are caused by the same virus. When variola is inoculated into cattle and carried through several transfers in these animals the virus (variola) becomes attenuated and approaches the nature of vaccinia. The changes in the Malpighian layer of the epidermis consist of swelling, cytoplasmic degeneration and liquefaction, formation of multilocular vesicles, and eosinophilic inclusion bodies—Guarnieri's bodies—which are swollen nucleoli that have migrated from the nucleus into the cytoplasm.

It would therefore seem advisable to issue warnings about the possibility of accidental vaccinia from undue contact with recently vaccinated persons. The risk appears to be greater in people who have never been vaccinated.

I would like to express my thanks to Dr. J. P. Marsden, consultant, Joyce Green Hospital, for his kind help and advice about the case, and to Dr. J. C. Birchall, assistant medical officer of health for Croydon, for his great interest in the case and for the repeated complement-fixation tests and cultures done through him in the virus laboratories.

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Torsion of Gall-bladder

Torsion of the gall-bladder is a relatively rare emergency, which can occur only in those cases in which the gall-bladder is suspended from the liver by a mesentery. Bean and Symond (1953), in a review of the literature, found 100 cases reported up to 1953. The first case was reported by Wendel in 1898. In his case there was a floating gall-bladder, with a long cystic duct, and a floating kidney, with cholelithiasis and perforation of the gall-bladder. Brewer (1899), in 100 consecutive dissections, found only five cases in which the gall-bladder had a mesentery. A mesentery is only one of the several possible congenital anomalies of the gall-bladder. Recht (1952) reported a case in which he found a double gall-bladder, one part of which had undergone torsion. According to Maingot (1948) most cases of torsion occur during later life—that is, at the age of 60–70. Short and Paul (1934) estimated that 84% of cases occur in females. A further case is here presented.

CASE REPORT

On admission the patient, a woman aged 71, complained of severe abdominal pain, mostly in the upper part and down the right side of the abdomen. She stated that the pain had started in her neck, and seemed to pass down her chest to settle in her stomach. She had vomited several times prior to admission. There were no other symptoms of note. Her own doctor had diagnosed angina pectoris. She stated that for the past two years she had had severe breathlessness on slight exertion.

On examination she was noted to be a frail, thin, ill-looking old lady, obviously in severe pain. She was edentulous. The tongue was clean and moist. No abnormal physical signs were detected on examination of her chest, apart from the fact that the apex beat was $1\frac{1}{2}$ in. (3.8 cm.) outside the nipple line. There was no abdominal distension; only slight movement with respiration was noted, and the abdomen was rigid down the right side, where it was also very tender. A distinct zone of maximal tenderness was noted about $1\frac{1}{2}$ in. (3.8 cm.) above and to the right of the umbilicus, this area being approximately 1 in. (2.5 cm.) in diameter. No mass could be felt and no loss of liver dullness was detected. Her temperature was 99° F. (37.2° C.), pulse 95 and regular, and blood pressure 290/120.

A provisional diagnosis of perforated duodenal ulcer was made and the patient prepared for operation.

A laparotomy was performed through a right upper paramedian incision. When the peritoneum was opened a pyriform black mass presented, which, on further inspection, was found to be a gangrenous gall-bladder. The gall-bladder was suspended from the liver by a mesentery and had undergone torsion in an anticlockwise direction. The mesentery extended from near the fundus to the proximal part of the cystic duct and was $\frac{1}{2}$ in. (1.3 cm.) across its widest part. The torsion involved the proximal half of the cystic duct, which was longer than usual. The gall-bladder was easily removed after the cystic duct and artery had been identified

and divided, only the mesentery remaining to be dealt with. A drainage tube to the gall-bladder bed was brought out through the upper part of the wound, which was then closed in layers. The patient's general condition remained satisfactory during and after the operation. Her general condition improved considerably during the next twenty-four hours; she continued to make good progress until her discharge from hospital on the fourteenth post-operative day.

COMMENT

One very interesting clinical sign in this case was the distinct zone of acute tenderness over a small area. This had previously been noted by Case (1951). The gall-bladder was relatively free and mobile, but when torsion occurred it became relatively fixed and firmly abutted against the anterior parietal peritoneum. The small zone of maximal tenderness therefore corresponds fairly accurately to the area in contact with the gangrenous gall-bladder.

The patient's convalescence was without incident, which is not only gratifying but interesting; Arthur (1937) estimated the mortality to be 16%.

I wish to thank Mr. G. Townsley for permission to report this case.

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Successful Femoral Embolectomy 17 Days After Acute Coronary Occlusion

Instances of successful removal of large emboli are not numerous. In a series of 19 femoral or iliac embolectomies performed during a five-year period (1946-51) at the Cook County Hospital (Klingensmith and Theis, 1952) only one patient was discharged with a surviving embolectomized leg, 15 died in the hospital, and 3 were discharged with an above-knee amputation. There are other reports in the literature claiming better results than this, but, even so, the percentage of successes is small.

A common cause of peripheral embolism is mural thrombus following myocardial infarction. Boas and Boas (1949) state that such thrombi are found in about 50% of cases of myocardial infarction that come to necropsy. Hellerstein and Martin (1947) found that the incidence of clinically detectable thrombo-embolic lesions in myocardial infarction in 1,600 cases was 11.5%. The incidence of embolism in the extremities was 5.5%.

CASE REPORT

A woman aged 64 was admitted to hospital on March 24, 1953. She was brought in by ambulance after an attack of severe substernal pain, which came on suddenly while she was walking.

On admission she was not shocked; pulse 82, irregular owing to extrasystoles; blood pressure 145/85. The heart sounds were normal, no murmurs or pericardial rub were heard, and there were no signs of cardiac failure. A diagnosis of myocardial infarction was made. This was confirmed by an electrocardiogram, which showed a recent anterior coronary occlusion. The patient was treated by rest in bed. No anticoagulants were used.

Satisfactory progress was made, apart from some chest infection, until April 10, when she complained of sudden onset of pain, first on the left side of the abdomen, and then, shortly after, by very severe pain in the right leg. On examination the right leg was pale, cooler than the left, and no arterial pulses were palpable. After ten minutes the limb had become mottled and blue. She was treated with

morphine, $\frac{1}{4}$ gr. (16 mg.), tolazoline hydrochloride, 50 mg. intravenously; heparin, 10,000 units; and ethyl biscoumacetate, 900 mg. After one hour the limb was still cold and cyanosed, but the pulsation of the external iliac artery had become palpable.

Three hours after the onset of pain an operation was carried out under local analgesia. No premedication was given, as the patient had had morphine for her pain.

One per cent. procaine was infiltrated and an incision made over and in line with the right femoral artery, in the femoral triangle. The artery was freed. Its wall was not thickened or calcified. Tapes were applied around the artery, which was opened between the tapes. Several small clots were removed. By releasing the pressure on the proximal tape, a thrombus 50 mm. long shot out of the lumen of the vessel. A ureteric catheter was inserted in the distal part of the artery, and 5 ml. of sodium citrate and 1 ml. of heparin was injected through the catheter. The incision was closed with an arterial suture. The sheath of the artery was not closed. The deep subcutaneous tissues were closed with plain catgut. The skin wound was closed and a firm bandage applied.

At the end of the operation there was a marked improvement in the circulation. The pulsation of the popliteal, dorsalis pedis, and posterior tibial arteries was palpable. The limb, however, remained mottled and cyanosed for some 12 hours post-operatively. At the end of the operation the patient complained of pins-and-needles in the toes.

An intermittent venous occluder was applied to the limb in the mid-thigh and left on for 24 hours, after which it was discontinued, as the circulation appeared to be normal.

Heparin therapy, 10,000 units eight-hourly, was given for 24 hours, and ethyl biscoumacetate, controlled by prothrombin times, was given daily for three and a half weeks.

Post-operative progress was uneventful. The patient was allowed up after four weeks, and was discharged quite well on May 16, five weeks after the embolectomy.

Our thanks are due to Mr. J. Thompson Fathi for his help and encouragement in the preparation of this article, and to Dr. P. J. Mills for his permission to publish this case.

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The Diagnosis of Mongolism in Infancy : Small Auditory Meatus

It was pointed out in a previous publication (Wallis, 1951) that the diagnosis of mongolism in infancy is made easier by the observation of Brushfield's spots. In Brushfield's (1924) own words these are: "Speckled white or very light yellow clearly defined pin-points near the outer margin, generally placed at regular intervals in a ring and appearing to be placed on the iris. I have not been able to find these in the brown iris."

Observation of a further 10 cases has confirmed my surmise that at birth all mongols have blue eyes and show Brushfield's spots. Unfortunately some normal children show the spots as well. However, at least if a newborn infant has not got them we may be sure that it is not a mongol.

Another sign which has come to light is the smallness of the external auditory meatus. In all 10 cases it has been found impossible to insert an auriscope speculum of 3 mm. diameter into the ear, and in fact in not one of them could the drumhead be seen on either side. This is merely an expression of the general lack of development of the basal bones of the skull, but it has not apparently been recorded previously.

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