when the intravenous route had been used. All cases in which the drug was given intravenously showed temporary albuminuria. In one case this persisted up to the fourth day.

The muscular contractions that were fairly common during and following the injection of evipan were not seen with nembutal used intravenously to the point of loss of consciousness. One out of the six healthy men who each received a fairly rapid intravenous injection of 10 c.cm. of cold sterile normal saline had an attack of shivering following the injection. This led to the inference that perhaps these muscular tremors are not a manifestation of hypersusceptibility to evipan in all cases.

In an attempt to detect hypersusceptibility to a barbiturate a test rather similar to the Schick test was devised. This was used in 210 cases. Into the skin of the forearm was injected 0.2 c.cm. of a 10 per cent. solution of sodium amytal, a control injection of sterile saline being made at the same time. The sites of injection were observed for the appearance of erythema. The results showed the unreliability of such a test in a very striking manner.

Conclusion

Hypersusceptibility is rare with the use of paraldehyde as a basal anaesthetic. Its explanation is very difficult in consequence, and cases are hard to anticipate.

More undue susceptibility is seen when avertin is used, and therefore rather more information as to the cause and avoidance of symptoms is available. Hypersusceptibility results in liver-cell damage in certain cases, and this may be due to the deficiency of a substance which normally protects the liver cells from necrosis during the detoxication of avertin.

With the barbiturates, hypersusceptibility is very inconstant, even in the same individual. Certain factors favour an undue reaction to a normal dose of the drugs, and though not absolutely constant these factors must be considered as a guide to dosage. No reliable test has so far been devised by means of which hypersusceptibility may be detected, and a skin test proved to be wholly unreliable.

Summary

It is suggested that deductions as to the cause and the prevention of hypersusceptibility to basal anaesthetics might be made by observing common factors in a large series of cases.

The liability to liver-cell damage from the use of these drugs is discussed.

Certain diseases and symptoms that suggest hypersusceptibility are recorded.

The route of administration is discussed as a factor in hypersusceptibility.

At the first public exhibition of its kind in the United States of America, held at the Harlem Art Center in New York City under the auspices of the Government's Federal Art Project and of the Bellevue Hospital's Psychiatric Division, 106 pictures were shown as the work of disordered minds. The artists included moronic children, chronic alcoholics, advanced epileptics, schizophrenics, manic-depressives, and victims of G.P.I. The majority of the exhibits told of mental conflicts and had but scant contact with reality, being shapeless (sometimes senseless), lurid, and gruesome. The idea underlying the art classes at Bellevue is to attempt a cure of the mentally sick by encouraging them to express their conflicts and at the same time to give psychiatrists a clearer picture of their patients' emotional life.

TREATMENT OF ACUTE OSTEOMYELITIS BY ULERON

BY

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My object in writing this note is not merely to record a short series of successful cases but to draw further attention to the use of uleron in the treatment of osteomyelitis. If it is of the value which I for the present am led to believe that it is, my belief can be confirmed by the observations of others, who I hope will put it to trial if they have not already done so.

The treatment of acute septic osteomyelitis demands the consideration of three problems: the relief of the abscess which is usually present; the treatment of the general infection, which in many cases manifests itself in the form of a virulent septicaemia; and the best method of dealing with the actual bone infection, which, although apparently responding satisfactorily to local treatment, may show a persistent tendency to recur, and this over a period limited only by the patient's span of life. For many years I have been interested in these problems, and after a close examination of the subject it seems to me that we cannot honestly maintain that our treatment has advanced much during the last twenty-five years, if we are to take as our criterion a highly improved mortality rate and an increased freedom from late recurrence of infection.

Practical experience over a long period improves one's judgment as to when to operate and as to the type of operation suited to each particular case; but it has been found that sera and blood transfusions are of very little value in the treatment of the severer types of septicaemia, and we still have to rely on Nature's powers of clearing up such infections. The liability of cases apparently completely cured to show severe and intractable recurrences years afterwards has, in my opinion, never received sufficient recognition. It is the knowledge of this liability to recur that has caused me always to be an advocate of complete subperiosteal resection in suitable cases.

The various forms of treatment advocated from time to time are familiar to us all, but the fact that they show such variety must surely mean that no one of them has been found to provide a complete solution to our difficulties. Hitherto no specific agent has been discovered that will really influence the staphylococcal septicaemia so often present, but my experience during the last year has led me to wonder whether we have not at last been offered something which, from the limited trial I have been able to give it, appears to be a curative agent worthy of more extended trial.

Five cases of acute osteomyelitis have been treated with uleron in addition to the ordinary local treatment. This drug, a sulphonamide preparation made by Bayer Products Ltd., has been used in tablet form (7½ grains). To young children we have given one tablet every four hours. The period over which it has been administered has varied up to several weeks.

The cases treated are few in number, but may be considered representative cases because they are all of the really severe type of osteomyelitis, and in each of four of them a different method of operative treatment was adopted; in the other no operation was done. Four were treated in the Royal Aberdeen Hospital for Sick Children, one in a nursing home.

Case I

A girl aged 11 was admitted to hospital on December 13, 1937, with a history of three days' illness—typical acute osteomyelitis of the lower end of the right femur with abscess formation. The child was very ill, and had a temperature of 102° and pulse of 126. An incision was made down to the bone, which was not drilled (Mr. S. G. Davidson). On the 17th there was pain and swelling of the left tibia, followed on the 18th by pain and swelling of the right humerus. Uleron, 7½ grains, was given thrice daily for about a week, beginning on December 17. Three days after uleron was started the temperature began to fall and the general condition rapidly improved. There was no operative treatment for the tibia or humerus. The patient was discharged in April, 1938, with the wound in the right leg healed.

Skiagrams showed the typical appearance of osteomyelitis in the femur, tibia, and humerus. *Staphylococcus aureus* was found in the pus. The report from a blood culture was negative, but there must have been considerable blood infection, as proved by the appearance of two very definite secondary foci.

Case II

A boy aged 4 was admitted to hospital on July 15, 1938, with a history of three days' illness, and also of swelling and pain at the lower end of the femur. The appearance was typical of osteomyelitis; temperature 102°, pulse 160. The child was gravely ill, and it was considered that any operative procedure was not justified. Uleron was given every four hours and continued for three weeks, when the child's face began to look rather bluish and use of the drug was discontinued. Two days after uleron was started his condition began to improve, and his temperature fell to normal in a week.

Skiagrams showed periosteal thickening at the lower end of the femur and, later on, a small focus in the shaft higher up. Blood culture showed the presence of *Staph. aureus*. The child was discharged one month after admission apparently cured.

Case III

A male child aged 2 was admitted to hospital on June 23, 1938, having a history of two days' illness, with pain and swelling at the upper end of the left tibia and an abscess. He was very ill, his temperature being 104° and his pulse 160. Uleron, 7½ grains, was given every four hours. On June 27 the abscess was incised down to the bone, and on July 20 the whole shaft was easily removed subperiosteally. A small part of the circumference of the shaft was sawn off in all its length, boiled, and replaced in the periosteal bed. Pus and blood culture made on June 27 showed *Staph. aureus*, but on July 6 blood culture was negative. A small secondary abscess developed in the lower end of the right radius, but this cleared up quickly after being drilled. On August 19 the leg wound was very clean. The granulations were exceptionally fresh-looking, and the tibia was re-forming in very good position.

Case IV

A youth aged 16 was admitted to a nursing home on July 21, 1938, with pain and swelling of the lower end of the right femur. The temperature was 106° and pulse 120. The abscess was incised on the same day. Four drill-holes were made and a small piece of the cortex of the femur was removed. Uleron, 7½ grains, was given every four hours. Blood culture was positive to *Staph. aureus*. A second blood culture on August 1 was negative. This patient showed a very rapid improvement, but uleron had to be discontinued after eight days owing to skin irritation.

Skiagrams showed that a considerable length of the shaft of the femur was infected. On August 18 there was very little discharge from the wound and the patient's general condition was excellent.

Case V

A boy aged 6 was admitted to hospital on August 10, 1938, having a history of two days' illness. His temperature was 102° and the pulse 138. There was pain and swelling over the lower end of the right femur, and the abscess was incised. Two drill-holes were made in the lower end of the femur; acriflavine and vaseline gauze dressing were applied and the leg fixed in plaster-of-Paris. Uleron, 7½ grains, was given every four hours. The temperature fell to normal in eight days. The child was very comfortable, and up to the time of writing the dressing has not been changed. Examination of the pus showed the presence of *Staph. aureus*. Blood culture was negative. This case was not quite so severe as the others, and has made exceptionally good progress.

Commentary

These case notes have been made as brief as is possible, and any discussion of local dressings, splintage, and sun exposure has been omitted.

As I have pointed out, the series is a short one, and it may be argued that similar recoveries might have been obtained by treatment other than that adopted, but I feel strongly that all these cases have done exceptionally well, particularly Cases I and II, which seemed absolutely hopeless. All of them were definitely of the really severe septic osteomyelitis, and not of the milder type sometimes seen.

PELVIC HYDATID CYSTS AND OBSTRUCTED LABOUR

BY

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Perusal of the literature leaves little doubt that, in this country at least, obstructed labour is only rarely caused by a hydatid cyst. Such a case recently seen in the practice of the maternity department of the Cardiff Royal Infirmary prompted me to consult the hospital records. They revealed a similar case fifteen years ago, and so this opportunity is taken of describing both cases.

Case I

A 5-gravida aged 33 was admitted on October 24, 1923, having been referred by Dr. Burns of Abertillery. She had previously had four living children—three *per vias naturales* and one by Caesarean section—and no miscarriages. The patient had been unwell during the early months of pregnancy and a hydatid cyst had been removed from the anterior aspect of the uterus at the fifth month.

Examination revealed a full-term pregnancy, labour being obstructed by a large mass in the pouch of Douglas. Classical Caesarean section was performed and a full-term living child weighing 6 lb. was delivered. The uterine incision was brought together with mattress sutures and the abdomen explored. The uterus, especially its right lower aspect, was studded with small tubercle-like bodies. There was a large retro-uterine fluctuant mass in the pelvis, with a number of hard white masses resembling caseous glands attached to the omentum. On manipulation the pelvic mass ruptured, and what appeared to be pus and masses of endocyst were extruded. A large number of cysts of all sizes were attached to the omentum and peritoneal surfaces, and were removed. Further exploration revealed a hard calcareous mass attached to the under surface of the liver, but whether primarily there or in adherent omentum could not be ascertained. Removal of the mass was