the administration of plasma and the occurrence of jaundice (122 days and 63 days, respectively) fall within the accepted limits. There was no history of contact with patients suffering from infective hepatitis. Unfortunately, it proved impossible to trace other patients who had been treated with reconstituted plasma from the batches used in these two cases. Histologically the picture was the usual one of subacute hepatic necrosis.

An attempt was made to ascertain the incidence of homologous serum jaundice in babies treated with plasma intravenously. Of 39 babies under 18 months old treated with reconstituted dried pooled plasma 26 survived the initial illness; among these were the two cases described above. Questionnaires were sent to the parents of the remaining 24 after an interval of six months or more; 17 replies were received, and no further cases of jaundice were brought to light. Unfortunately, on the available material, only a small and entirely inadequate series of control cases could be investigated. Of 18 babies in the same age group as those previously described, and treated during the same period with whole blood or saline intravenously, 12 survived. Questionnaires were sent to their parents, but only five replies were received. Among these there was no report of the occurrence of jaundice.

Summary

Two fatal cases of homologous serum jaundice in infancy are described. One child developed jaundice 63 days after plasma infusion, and died at the age of 5 months, after a short illness characterized by vomiting and convulsions. The other child was 1 year old when jaundice developed 122 days after infusion; he died after four days' illness, having been comatose for two days.

No other cases of jaundice could be traced in 17 babies who had also been treated with intravenous plasma, or in five babies treated with intravenous saline or whole blood.

It seems possible that homologous serum jaundice in infancy may go unrecognized, just as it did until recently in adults, because of the long incubation period. The present investigation into incidence, though inadequate, is reported in the hope that it will stimulate further reviews based on the systematic follow-up of cases treated with plasma; by this means more substantial evidence of the real incidence of homologous serum jaundice in infancy may become available.

We are indebted to Prof. C. Bruce Perry for permission to record these cases and for his continued interest and encouragement. To Prof. T. F. Hewer our thanks are due for the necropsy reports.

REFERENCES

- Beeson, P. B., Chesney, G., and McFarlan, A. M. (1944). *Lancet*, 1, 814.
British Medical Journal, 1946, 2, 423.
 Bruyn, H. B. (1947). *J. Pediat.*, 31, 60.
 Propert, A. S. (1938). *British Medical Journal*, 2, 677.
 Scheinberg, I. H., Kinney, T. D., and Janeway, C. A. (1947). *J. Amer. med. Ass.*, 134, 841.
 Spurling, N., Shone, J., and Vaughan, J. (1946). *British Medical Journal*, 2, 409.

The 1946 Year Book of General Therapeutics, November, 1945, to August, 1946, edited by Oscar W. Bethea (Year Book Publishers, Chicago, \$3.75; H. K. Lewis, London, 21s.) is a well-selected summary of current medical literature and gives a concise and balanced review of recent progress in therapeutics. The summaries include accounts of some of the newer sulphonamides likely to be useful in diseases of the colon, advances in the use of penicillin and streptomycin, the treatment of barbiturate poisoning with amphetamine, and recent experience with "benadryl" in allergic disorders. It is interesting to note that with the advent of newer influenza vaccines (A and B viruses) patients no longer prefer the risk of disease to the unpleasantness of prophylaxis. The Year Book is easy to read, well indexed, and enlivened by pithy editorial footnotes.

Medical Memoranda

Traumatic Delayed Rupture of the Gall-bladder in a Child Aged 9

Traumatic rupture of the gall-bladder is an injury of considerable rarity. Usually it is found in association with other abdominal injuries, these being of such a nature as to overshadow the biliary lesion. The following case, though not unique, is thought to be of sufficient interest to warrant recording.

CASE REPORT

A boy aged 9 years was admitted to hospital on July 29, 1946. Two days before admission he fell while attempting to jump from a stationary railway truck on to the embankment. He was unconscious for about half an hour, after which he was removed to a local hospital, where he regained consciousness. His condition was then one of mild shock, accompanied by vomiting. He was complaining of vague abdominal pain, and slight abdominal rigidity was present. The usual measures to combat shock resulted in marked improvement in his general condition, which remained satisfactory until the following evening, when he again complained of vague abdominal pain. On this account, and in view of the probability of laparotomy being necessary, he was transferred to a larger hospital.

On examination the child did not appear shocked and lay quite at ease while being examined. Abdominal distension was not present, but on palpating the abdomen there was generalized tenderness, maximal over the upper part of the right rectus muscle. Rigidity and "rebound tenderness" were absent, and there was no evidence of free fluid in the abdomen. On rectal examination the boy complained of pain about the umbilicus; otherwise nothing abnormal was detected. The pulse rate was 110 and the temperature 98° F. (36.7° C.). A tentative diagnosis of retroperitoneal haematoma was made.

Throughout the next two days his general condition remained excellent, the pulse being about 100 and the temperature varying between 98° and 100° F. (36.7° and 37.8° C.). This low-grade pyrexia was taken to indicate absorption from a retroperitoneal haematoma, and signs of peritonitis were still absent.

On July 31 the boy's condition suddenly deteriorated. He complained of severe abdominal pain and signs of shock were evident. He vomited three times within half an hour, the vomitus consisting of white frothy material. Abdominal examination revealed rigidity of the right rectus muscle and dullness of the right flank. Laparotomy was now considered necessary.

Operation.—The abdomen was entered by the right paramedian route. About 17 oz. (480 ml.) of bile-stained fluid was present in the peritoneal cavity. This fluid was removed, and on exploring the abdomen a hole measuring about 1/4 in. (6 mm.) in length was found in the fundus of the gall-bladder. Signs of inflammation were not evident in the organ, and although the edges of the hole were discoloured the perforation appeared to be of recent origin. There was no lymph exudate or any evidence of adhesions to surrounding structures. The small bowel was slightly dilated but otherwise normal. Drainage of the gall-bladder was effected through the hole by means of a fine rubber tube, and that of the associated area by a "cigarette" drain. The abdomen was closed around these drains.

No organisms were seen on microscopical examination of smear preparations, and culture of the bile-stained fluid from the abdomen showed no bacterial growth.

Routine post-operative measures were employed to combat shock, and within twelve hours the patient's general condition was satisfactory. Convalescence was uninterrupted and the child was discharged well after twenty-one days.

In the opening remarks I inferred that this case was not unique. Two similar cases are recorded—one by Siegel (1909) and a second by Hicks (1944). The latter case was one of perforation of the gall-bladder in a child aged 3 years; in the former, perforation occurred eight days after injury and was explained as being a distension gangrene due to secondary infection when the cystic duct became occluded with blood clot.

I should like to express my thanks to Mr. Matthew White for his permission to record this case.

DAVID FREW COULTER, M.B.,
 Resident Assistant Surgeon, Royal Hospital
 for Sick Children, Glasgow.

REFERENCES

- Hicks, J. H. (1944). *Brit. J. Surg.*, 31, 305.
 Siegel, E. (1909). *Munch. med. Wschr.*, 66, 341.