

In 1965 routine virus studies in the Blackburn group of hospitals showed that not only polio virus, both wild and vaccine strains, were isolated but also the following enteroviruses: Coxsackie types A5, A9, B3, B4, and B5. E.C.H.O. types 3, 6, 7, 8, 15, and 22.

Most of these cases occurred during July, August, and September.

Infants infected with rubella in utero harbour the virus after they are born, and it can be isolated and even infect other susceptible individuals. We felt it worth while, therefore, to see if we could culture any enteroviruses from foetuses, stillbirths, and neonatal deaths where the first trimester of pregnancy coincided in whole or in part with the enterovirus outbreak. This was done in 23 cases and selection was random. In one case faeces only of a child who survived with an abnormality were examined. Investigation was not confined to infants who were congenitally abnormal.

Brain, lungs, faeces, and placenta were examined by conventional methods, being inoculated into monkey-kidney, human-amnion, and Hela-cell cultures. The foetal tissues and placentas were examined for histological changes.

All results were negative except for one case. This was a full-term stillborn infant who had shown foetal distress. E.C.H.O. virus type 3 was isolated but the histology was negative. The mother's blood was examined in November 1966 and no E.C.H.O. antibodies were demonstrated. The significance of this isolation is therefore in doubt.—We are, etc.,

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Prevention of Pressure Sores

SIR,—Everyone who is interested in the adequate care of both geriatric and younger long-term patients must have read with interest the excellent article on the large-cell ripple mattress (18 February, p. 394). I am sure the findings will be endorsed by all who use this type of mattress.

The writers mention in passing the Sierex air-filled mattress.¹ This is very much cheaper and has not the inconvenience of needing a motor. All readers may like to know about it, because hospitals are often prevented by cost from having as many ripple beds as they would like to have, excellent as these undoubtedly are. In my small hospital unit for the young chronic sick we use these for all bedridden patients, and find it of equal value in both preventing and healing pressure sores, though because it does not reach the heels normal precautions have to be taken to avoid pressure on these areas. The use of this mattress eliminates the frequent turning of patients, which is trying for any patient who wants to carry on the normal activities of daily living from his bed, and is exhausting and time-consuming for the staff.

The principle on which this bed works is that it has two long air cells connected by a tubular collar which lies under the pillow, and a long cell on each side. These cells

are inflated, and when the patient is lying on the mattress the sacral area is almost completely relieved of pressure, and on movement of the patient there is a flow of air from one part of the bed to the other, which results in an equalizing of pressure over the whole body surface.—I am, etc.,

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REFERENCE

- ¹ *Mth. Bull. Minist. Hlth Lab. Serv.*, 1966, 25, 239.

Proflavine and Acriflavine

SIR,—Professor E. Boyland¹ in an interesting recent lecture on "A Chemist's View of Cancer Prevention," speaking of the carcinogen acridine orange, mentions that it is a derivative of proflavine, and that the latter "does not seem to have been adequately tested for carcinogenic activity." In the case of a compound which has been so long and extensively used as a surface antiseptic for wounds such a statement might well cause serious misgivings. However, I was able to say in 1937,² "I am indebted to Professor Kennaway, of the Research Institute of the Royal Cancer Hospital (Free), London, for unpublished observations which indicate that neither acriflavine nor proflavine, when painted on the skin of mice over a long period, has carcinogenic action." I have not met a suggestion that Kennaway's work was ever inadequate, and so conclude that this reference was overlooked. But if Professor Boyland meant that additional laboratory procedures should have been employed, it must be added that over 50 years of almost world-wide clinical use without a sign of carcinogenicity, in addition to Kennaway's negative results, constitute a stupendous record. This affords practical proof that neither proflavine nor acriflavine, as applied therapeutically to wounds, is carcinogenic in man. Anticarcinogenic properties have even been ascribed to some acridine compounds.³ Finally, it must be emphasized that so far generalizations on pathogenic properties based purely on chemical genealogies require to be made with the utmost reserve.—I am, etc.,

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REFERENCES

- ¹ Boyland, E., *Proc. roy. Soc. Med.*, 1967, 60, 93.
² Browning, C. H., *Edin. med. J.*, 1937, 44, 497.
³ Albert, A., *The Acridines*, 1966, 2nd ed. London.

Percutaneous Cholangiography

SIR,—Percutaneous cholangiography has become an accepted method of investigating obstructive jaundice. I have been using this method intermittently during the past three years, and after initial enthusiasm following a few very successful attempts I became somewhat discouraged. I had many failures, especially in jaundice of fairly recent origin. The fault may well have lain in my technique, but I should be interested to know whether other workers have also found that this method can only be relied upon in cases of long-standing jaundice where the diagnosis is probably known already.—I am, etc.,

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Simultaneous Tubal and Uterine Pregnancy

SIR,—I should like to report a case of simultaneous tubal and uterine pregnancy with continuation of the pregnancy to term.

The patient was a 36-year-old African, who was admitted to hospital on 9 February 1966 complaining of intermittent pain in the right side of the abdomen. She had a history of two months' amenorrhoea, and a previous tragic obstetrical history—she had had nine children all of whom died in infancy, except the youngest, who was aged 10 years.

On examination she was thin and ill-nourished (haemoglobin 60%). There was colostrum in her breasts. Abdominal palpation revealed a mass in the right iliac fossa which appeared to be arising out of the pelvis. Pelvic examination revealed a soft uterus and cervix, with a slightly tender mass in the right fornix, but no uterine bleeding. The diagnosis suggested ectopic pregnancy or uterine pregnancy with an ovarian cyst.

At laparotomy there was about 1 litre of fresh blood in the peritoneal cavity and a ruptured tubal pregnancy at the fimbriated end of the tube. Right salpingectomy was performed. The uterus was the size of a 10-week pregnancy.

She made satisfactory postoperative progress and was discharged home on the 16th day with a haemoglobin of 68%. At the follow-up clinic four weeks later her uterus had increased in size, and on 18 August 1966 she had a spontaneous vertex delivery of a male infant weighing 6 lb. 14 oz. (3 kg.) and the puerperium was uneventful.

It was not noted at laparotomy which ovary contained corpus luteum, but since neither ovary was removed the progestational hormone was adequate to maintain the uterine pregnancy.

Novak¹ reported 276 cases of combined intrauterine and extrauterine pregnancies, yet Jeffcoate² says, in discussing ectopic pregnancy, that simultaneous intrauterine and extrauterine pregnancies are rare. Reid³ estimates they occur once in the course of several thousand pregnancies. With our patient, who had such a bad obstetrical history, the satisfactory outcome of her uterine pregnancy was very gratifying.—I am, etc.,

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REFERENCES

- ¹ Novak, E., *Surg. Gynec. Obstet.*, 1926, 43, 26.
² Jeffcoate, T. N. A., *Principles of Gynaecology*, 1962, 2nd ed. 233. London.
³ Reid, D. E., *A Textbook of Obstetrics*, 1962, 281. Philadelphia.

Imported Tropical Diseases

SIR,—Your leading article (25 February, p. 450) gives the names of three special centres dealing with tropical diseases in Great Britain, but omits to mention the Dreadnought Seamen's Hospital at Greenwich.

May I venture to remind you that it was from the seamen's hospitals that Sir Patrick Manson and Joseph Chamberlain developed the first hospital for tropical diseases and the first school of clinical tropical medicine in London? The great names of Manson, Low, and Manson-Bahr may not be as closely associated with the seamen's hospitals as they were 20 years ago, but cases of tropical disease continue to appear in our wards, and a unique feature of the Dreadnought Hospital is its traditional familiarity with the inhabi-