

shown that this is related to the length of time which elapses between the start of the anaesthesia and the delivery of the baby. The high incidence of asphyxia in Mr. Huntingford's cases is presumably due to the long delay before the babies were delivered. (Just under half an hour in those cases receiving ether and about a quarter of an hour using the more rapid cyclopropane and thiopentone techniques.) When general anaesthesia is employed it is important to reduce this delay to a minimum compatible with safety, if neonatal asphyxia is to be avoided.

Transvaginal pudendal block<sup>2</sup> is an extremely useful technique for many operative vaginal deliveries. The difficult forceps delivery, however, still calls for general anaesthesia. Provided this is skilfully given and delivery is not delayed, there should be no undue increase in neonatal asphyxia or in perinatal mortality.—I am, etc.,

St. Luke's Hospital,  
Bradford.

J. M. BRUDENELL.

REFERENCES

- Hamer-Hodges, R. J. (editors: T. Barnett and J. J. Foley.) *The Obstetrician, Anaesthetist, and the Paediatrician in the Management of Obstetric Problems*, 1963. Pergamon Press, London.
- <sup>2</sup> Huntingford, P. J., *J. Obstet. Gynaec. Brit. Emp.*, 1959, **66**, 26.

**M.R.C. Report on Leukaemia**

SIR,—The first report to the Medical Research Council by the Working Party for the Evaluation of Different Methods of Therapy in Leukaemia was published in the *Journal* (January 5, p. 7). The subject was acute leukaemia in adults, and the report gave the results of a controlled clinical trial in which 6-mercaptopurine was administered alone or in combination with prednisone at either low or high dosage.

As part of the analysis of the fatality in the three groups of patients the deaths that occurred during the first four weeks from the start of treatment were related to the logarithm of the blast-cell count in the peripheral blood before treatment was begun. The analysis appeared to show that the patients with the higher blast-cell count survived significantly better than those with the lower blast-cell counts. In the course of further work it has been found that the figures submitted as "blast-cell counts" were, in fact, blood neutrophil counts. The unusual relationship reported between the "blast-cell count" and fatality was, therefore, erroneous. The conclusions about the relative value of the different treatments are unaffected by this correction.—I am, etc.,

D. A. G. GALTON,

Secretary, Working Party on the Evaluation of  
Different Methods of Therapy in Leukaemia.

London S.W.3.

**General Practice Outmoded ?**

SIR,—Your leading article (May 11, p. 1245) quotes Professor J. H. F. Brotherston as stating that if things go on as they are the general practitioner will become a kind of medical social worker. It is my firm belief that the best general practitioners have always been just this. As soon as our medical schools can convince the admirably trained young men coming out of the medical schools that "social workers" is not a dirty word, comments like Professor Brotherston's will themselves become outmoded. Surely the general practitioner is the most versatile of the case workers rather than the least of the medical men?—I am, etc.,

Bournemouth.

JAMES F. FISHER.

**Renal Transplantation and the G.P.**

SIR,—While the subject of renal transplantation and the status of general practitioners is so topical, I feel that I must bring the following case to your notice.

Recently a patient of mine was asked by a well-known hospital if she would be prepared to donate a kidney to a relative who was a patient of another doctor in another area. My patient was extensively investigated and was then admitted for the operation. Unfortunately, at that time the recipient's condition was not propitious and the operation was delayed for a fortnight. My patient was sent home with many instructions about how she should keep herself as free from infection as possible, but no advice about contacting her doctor. Eventually she was admitted. The operation was performed and then she was discharged. Only then, for the first time, did I hear from the hospital, telling me that she had been admitted, that the diagnosis was "renal donor," and that renal function tests were normal.

Some years ago this patient had a prolapsed urethra, which had been treated with pelvic exercises. Unfortunately, she forgot to mention this when she attended the hospital, and no vaginal examinations were made. Since her operation the prolapse has recurred, and she now has a severe urinary infection with albuminuria, haematuria, and *E. coli* partially resistant to the sulphonamides and tetracyclines.

In spite of Sir Arthur Thomson's statement, G.P.s still like to feel that they are of some importance, and had the hospital taken the trouble to write to me they would have learnt about the patient's prolapse, and this might have affected their decision to operate.—I am, etc.,

Edgware, Middlesex.

GERALD M. MICHAEL.

**Buccal Smear Surveys for Sex Chromatin**

SIR,—The results of a survey of buccal smears for sex chromosome abnormalities by Sanderson and Stewart<sup>1</sup> prompted a similar survey of the oligophrenic patients in the mental hospitals and hospitals for the mentally subnormal and the local authority training centres in Monmouthshire. Of 760 smears examined, 550 were male and 250 female, and patients showing abnormal smears were subjected to chromosome analysis (see Table).

Sex	Age	Sex Chromosome Constitution	Chromosome Number	Physical Characteristics	Diagnosis
M	19	XXY	47	Atrophic testes. Lack of secondary sex characteristics. I.Q. 90	Klinefelter syndrome
M	35	XXY	47	As above. I.Q. 42 Kyphosis. Wedging of vertebrae. Varicose ulcers. Chronic bronchitis. I.Q. 50	" Mosaicism
		XY	46		
M	70	XXY	47		
		XXX	47		
		XXXXY	49		
M	47	XXYY	48	Blind with corneal opacities. White hair. Feminine distribution of hair. Atrophic testes. I.Q. 35	
F	5	XXXX	48	Normal appearances. Bilateral congenital dislocation of hips, naevus left leg and thigh. I.Q. 40	Quadruple X syndrome

This small survey has produced an unexpectedly interesting bag of sex chromosome abnormalities, particularly the last three cases. During some experimental work with a closed circuit television system it

was found that good chromosome pictures can be displayed on a 24-in. (61-cm.) television screen using a microscope with a built-in light source (Baker "patholette") and a  $\times 80$  apochromatic objective. This procedure can be useful for teaching purposes.

Projecting an enlarged image from a chromosome negative on to a Thorn image-retaining panel<sup>2</sup> produced a well-defined orange-coloured luminescent image which increased in intensity the longer the plate was left under the enlarger. The image was retained for half an hour after the enlarger was switched off provided the voltage across the plate was maintained. This procedure may be of assistance in examining and classifying individual chromosomes.

I am indebted to Mr. J. Andrews and Mr. K. Cecil for preparing the chromosomes and buccal smears for examination at this hospital. Also to Miss J. Ishmael and Dr. R. M. Lawrence of Llandough Hospital for carrying out five chromosome analyses and for their help and encouragement in the establishment of a chromosome unit at this hospital.

—I am, etc.,

Llanfrehfa Grange Hospital,  
Cwmbran, Mon.

T. S. DAVIES.

#### REFERENCES

- <sup>1</sup> Sanderson, A. R., and Stewart, J. S. S., *Brit. med. J.*, 1961, 2, 1065.  
<sup>2</sup> Henderson, A. S., *New Scientist*, 1962, 16, 686.

#### Oral Phosphates for Hyperparathyroidism

SIR,—In the Humphry Davy Rolleston lecture before the Royal College of Physicians, June, 1962 (December 1, 1962, p. 1419, and December 8, p. 1495), Dr. C. E. Dent discussed the feeding of phosphate as a form of medical treatment for primary hyperparathyroidism. Whereas we agree that the feeding of phosphorus can reverse many of the biochemical changes of hyperparathyroidism, we would like to re-emphasize the danger of such treatment. As Dr. Dent points out, metastatic calcification may occur. A more important consequence may be a decrease in renal function or a rapid worsening of renal function if it is already impaired. In two patients, who received 8 g. of neutral phosphate daily for two to three weeks, the glomerular filtration rate decreased from control levels of 86 and 55 ml. per min. to 68 and 35 ml. per min., respectively.<sup>1</sup> In a group of normal dogs, each of which received 9 g. of neutral phosphate daily for four to six weeks, glomerular filtration rate decreased 30 to 50% from control levels. Two months later the glomerular filtration rate was still depressed. Relatively large changes in glomerular filtration rate may occur without obvious changes in blood urea nitrogen or in serum creatinine. These findings raise the question as to whether it is ever safe to use oral phosphate in the treatment of conditions characterized by hypercalcaemia. Certainly, if phosphate is used at all, measurements of renal function should be performed at frequent intervals.—We are, etc.,

JOHN R. GILL.

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Bethesda 14, Md., U.S.A.

DOROTHEA E. HELLMAN.  
FREDERIC C. BARTTER.

#### REFERENCE

- <sup>1</sup> Gill, J. R., and Bartter, F. C., *J. clin. Invest.*, 1961, 40, 716.

#### Treatment of Umbilical Hernia

SIR,—Your interesting annotation on the treatment of umbilical hernia (May 11, p. 1249) does not stress the importance of invagination of the umbilical hernia

before the application of strapping, which is so necessary for this procedure to be successful. Also there was no mention that the application of any padding or coin underneath the plaster defeats the object of the application and might indeed result in enlargement of the hernial orifice. It might also have been mentioned that transparent "sellotape" is very useful for fixing the invaginated umbilical hernia and causes less reaction in the skin than strapping, but needs more frequent application. The state of the skin and the hernia can easily be seen through the sellotape.

Personally, I think that strapping with invagination speeds the recovery of this condition in most cases and certainly stops the further distension of the hernial orifice that occurs when the baby cries and the hernia protrudes more obviously.

With regard to avoiding the surgical treatment of these herniae before the age of 4 to 6 years, may we truly hope that yet another unnecessary operation, so often involving traumatic separation of baby and mother in the most vulnerable years, be given up?—I am, etc.,

Kettering, Northants.

ROBERT WIGGLESWORTH.

#### Portal Hypertension following Cholecystectomy

SIR,—The frequency of gall-stones has been estimated at 15 to 20% of all adult subjects in this country. Of the operations performed on the gall-bladder and the common bile-duct 90% are for gall-stones or their complications, or for complications following cholecystectomy. It is not surprising that cholecystectomy is the second most commonly performed intra-abdominal operation, being exceeded only by appendicectomy. Maingot<sup>1</sup> has listed a formidable number of complications, one of which was portal hypertension secondary to biliary cirrhosis resulting from long-standing biliary obstruction by gall-stones.

I wish to draw attention to the fact that portal hypertension can develop as a result of portal-vein damage or constriction from fibrosis following cholecystectomy. This was stated by Milnes Walker<sup>2</sup> to be a rare occurrence, but in view of the increasing number of cholecystectomies and common bile-duct explorations it might become a not uncommon complication. The following case illustrates this point.

A woman, aged 63 years, was admitted to a hospital elsewhere with cholecystitis in June, 1955. Cholecystectomy was carried out. The common bile-duct at operation appeared normal and contained no palpable gall-stones. Therefore it was not explored. The patient made a satisfactory recovery.

Two months later she complained of episodes of colicky epigastric pains associated with vomiting, but no jaundice or fever. In May, 1956, she sought medical advice. An intravenous cholangiogram was carried out. This showed a gross dilatation of the common bile-duct due to stone. She was admitted to hospital for exploration of the common bile-duct. The liver-function test showed a mild degree of obstructive jaundice. At laparotomy a stone was removed from the common bile-duct and an operative cholangiogram was done. This revealed a free passage of the "dye" in the duodenum and there were no residual stones. On the fourth post-operative day she was noticed to have ascites. Abdominal paracentesis was carried out and 1½ litres of clear fluid was drained. After this she became completely symptom-free and there was no evidence of ascites.

In December, 1960, she was readmitted to hospital with haematemesis. This was treated by blood transfusion and she made a good recovery. Barium-meal examination at