together with clinical and haematological evidence for the diagnosis of acquired haemolytic anaemia.

The distribution was as follows:

Controls (6,000)		Acquired Haemolytic Anaemias (127)
O, 45.39%		47.24% (60 cases)
A, 43.28%		40.16% (51 ")
AB, 2.748%		5.51% (7 ")
B, 8.582%		7.09% (9 ")

The Rh distribution was:

		Acquired Haemolytic Anaemias	Controls (6,000)
Rh +ve (D +ve)	..	82.10%	82.16%
Rh -ve (D -ve)	..	17.90%	17.84%

From these figures there is no reason to suppose there is a strong association between blood group O and the disease, or that there is any marked abnormality.

We thank Professor R. S. Penrose, F.R.S., and Dr. Sylvia Lawler for their helpful criticism.

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HYPERTENSIVE DISEASE IN JAMAICAN NECROPSY MATERIAL

BY

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In an investigation of the adrenal glands in hypertension it was noticed that hypertensive disease seemed to be common in necropsy material here in Jamaica. Therefore the incidence and type of hypertensive disease in adult Jamaicans coming to necropsy were investigated.

Methods and Materials

The clinical notes and necropsy data of 694 adult Jamaicans of mixed racial descent were examined. No selection of cases, which for practical purposes were consecutive, was made except that 13 were discarded because there was doubt whether they were normotensive or hypertensive.

The remaining 681 cases were grouped according to whether they were normotensive or hypertensive. Criteria used were the clinical history, blood-pressure, heart weight, thickness of left ventricle, weight of kidneys, and vascular changes in the arterioles. Repeated diastolic readings of 100 mm. Hg or over were accepted as evidence of hypertension. A few known hypertensives in terminal cardiac failure had lower readings. Cases of sudden death with no history were regarded as hypertensive if they showed an increase in heart weight (above 400 g. in the male and 350 g. in the female) due to left ventricular hypertrophy (in the absence of a valvular lesion), as well as vascular lesions of hypertension. The hypertensive cases were divided into essential and renal groups.

D

Results

Hypertensive disease was found in 211 (31%) out of 681 necropsies (see Table): 132 (62%) were judged to be essential, and in 79 (38%) renal disease was present. The renal lesions were: pyelonephritis in 46 cases, glomerulonephritis in 20, and diabetic glomerulosclerosis in 3. The remaining 10 included amyloid disease, renal hypoplasia, carcinoma, and narrowing of a renal artery.

Incidence of Hypertension in 681 Necropsies

Age	No. of Necropsies		No. with Hypertension	
	Male	Female	Male	Female
16-19	10	15	3	1
20-29	45	46	7	6
30-39	56	50	17	11
40-49	78	70	22	22
50-59	93	44	37	14
60-69	63	42	25	14
70-79	33	23	15	12
80 and over	6	7	2	3
Total	384	297	128	83

In order to assess the relationship of pyelonephritis to hypertension in more detail, a study was made of a series of 250 consecutive adult necropsies which I had performed or witnessed. There were 40 cases of pyelonephritis (16%). In 11 it was associated with some obstruction in the urinary tract, and in seven with diabetes mellitus. Of the 40 cases with pyelonephritis, 26 had hypertension, but in 5 of these the pyelonephritis was mild, and associated with some other severe renal disease. In four others the pyelonephritis was thought to be too mild to account for the hypertension. Of the 17 cases of hypertension in which pyelonephritis was thought to be the essential lesion the disease was chronic. In 14 of these it was still active.

Hypertension was concerned in the death of 139 of the 211 cases of hypertension in the larger series: 40 died in cardiac failure, 38 in renal failure, 17 in cardiac and renal failure, 26 with cerebral haemorrhage, and 18 from other related causes, including cerebral softenings and hypertensive encephalopathy.

Discussion

There is evidence that hypertension is more common in the African than in the Caucasian. Reviewing the extensive literature on the subject, Bays and Scrimshaw (1953) concluded that racial differences in the incidence of hypertension exist and that the incidence is higher in the African and American negro than in the Caucasian. The majority of Jamaicans are of African or mixed African and Caucasian descent, but little is known about the incidence of hypertension and hypertensive disease here in Jamaica. Kean (1941) investigated racial differences in the incidence of hypertension in Panama and found hypertension was seven times more common in the West Indian immigrant than in the Panamanian. From a study of necropsy material Taylor (1945) concluded that hypertensive disease was six times more common in West Indian immigrants than in Panamanians, and three times more common than in Caucasians resident in Panama. He also found pyelonephritis was more frequent in the West Indian group than in other groups.

In my Jamaican necropsy material 30.9% showed evidence of hypertension. This comes close to Taylor's figure of 32.7% for West Indian immigrants, and is to be compared with the 10.4% he quotes for Caucasians

resident in Panama, and the 5.2% for Panamanians. The number of Caucasians coming to necropsy at University College Hospital, Jamaica, was small, but, of the 18 cases so described and sufficiently documented, only one had hypertensive disease. These comparisons are of interest, but no conclusion regarding the incidence of hypertension in the general population can be drawn from them. The findings show, however, that the ratio of renal (38%) to essential hypertension (62%) is high, since it is generally accepted that in 90% of hypertensives there is no kidney disease to explain the elevation of blood-pressure. Though the presence of renal disease in some cases of hypertension may be coincidental and in others the severity of the renal disease may have been misjudged and the cases wrongly designated renal hypertension, it is unlikely that these factors would alter the ratio to any great extent.

The commonest renal lesion was pyelonephritis, and in the smaller series of 250 cases previously mentioned 40 (16%) had pyelonephritis. This approaches Taylor's figure of 19.6% for West Indian immigrants into Panama, and is to be compared with the 8.2% he quotes for Caucasians resident in Panama. The reasons for this apparently high incidence of pyelonephritis are not known. The reasons for this apparently high incidence of pyelonephritis are not known. A number of factors, including urinary obstruction, diabetes mellitus, and venereal disease, may be concerned. Of the 40 cases of pyelonephritis 11 were associated with obstruction and 7 with diabetes mellitus. The incidence of venereal disease in the present series is not known, but it is probably higher than would be encountered in present-day European material.

In the same series of 250 cases there were no fewer than 11 cases of diffuse glomerulonephritis (4.4%). This suggests that climate plays no important part in the aetiology of the condition, and that infections with the group A beta-haemolytic streptococcus may be common here.

Raaschou (1949) showed that a normal or near-normal liver function was needed if hypertension was to be maintained. Loyke (1955) demonstrated that hypertension did not usually occur in the presence of cirrhosis provided the kidneys were normal, and also that established hypertension was reversed to normal pressure with the onset of cirrhosis. In my material 2 out of 26 cases of cirrhosis had normal blood-pressure readings but gave a history of hypertension or had anatomical evidence of hypertension.

Summary

Evidence of hypertension was found in 31% of adult Jamaicans coming to necropsy, but no conclusion regarding the incidence of hypertension in the general population can be drawn from this finding.

The ratio of presumed renal (38%) to essential hypertension (62%) was high. Pyelonephritis was the commonest lesion.

Hypertension was concerned in the death of 20% of Jamaicans coming to necropsy.

I thank Professor G. Bras and Dr. W. Robertson for their helpful criticism.

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TWO CASES OF LOCKED TWINS

BY

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This very rare condition is believed to occur once in every 90,000 deliveries or once in every 1,000 twin deliveries. It is thus felt justifiable to report these two cases.

Case 1

An unbooked primigravida aged 26 was admitted on October 22, 1958, to the Obstetric department at Queen's Park Hospital, Blackburn, as a case of twin pregnancy with ruptured membranes. There were no contractions. The pregnancy had advanced to just over 36 weeks.

The antenatal history showed that an external cephalic version had been performed at the 31st week. The breech presentation recurred, and version was repeated two weeks later. Twin pregnancy had then been suspected, and an x-ray examination confirmed the presence of twins. The leading foetus was reported to be presenting by the breech with its spine to the left, yet it was difficult to decide whether the legs were flexed or extended. The second twin was presenting by the vertex, and its spine was to the right.

The membranes had ruptured 11 hours before admission, but the patient stated that the amount of liquor that had drained was not excessive. She felt no uterine contractions. The uterus was enlarged to the level of the ensiform cartilage. The pregnancy seemed to have been progressing satisfactorily. The blood-pressure was 125/80. The haemoglobin was 73% (10.9 g./100 ml.). Urine examination was negative. Two foetal hearts were heard—one in the right iliac fossa and the other to the left of the umbilicus. A vaginal examination showed the cervix to be closed, and a vertex was thought to be presenting at the brim (this was probably the vertex of the second twin).

Complete bed rest, prophylactic penicillin, and oral iron therapy were prescribed.

Four days later labour began, but the contractions were rather irregular and infrequent. Next day the cervix was found to be three-quarters dilated and a flexed breech was presenting at the level of the brim. The contractions had ceased for approximately four hours. A "pitocin" drip containing 10 units per litre was started intravenously. The contractions became more frequent, but were short in duration. At 8.30 p.m. the cervix was found to be fully dilated on vaginal examination and the breech had reached the mid-cavity in the left sacro-transverse position. Two hours later the breech was just showing at the vulva and the contractions were quite strong. An anaesthetist was present, as it was customary to give the patient a light anaesthetic for the delivery of the aftercoming head. For another hour no advance was noticed, and it was decided to assist delivery.

An episiotomy was performed after infiltration of the perineum with 1% lignocaine. The legs were brought down and with gentle traction the baby was delivered to just above the umbilicus. The patient was then very apprehensive and uncooperative, and it was decided to proceed with the general anaesthetic at once and extract the baby. This was begun (thiopentone, nitrous oxide, oxygen, and ether), and further traction could achieve delivery to the middle of the scapulae but no further, in spite of bringing down the arms. Further vaginal examination revealed the head of the second twin to be engaged in the pelvis. It was then realized that the head felt above the symphysis pubis was that of the first twin. The head of