

11–78 mg./24 hr.). Free (i.e. non-peptide) hydroxylysine is usually present only in trace amounts, except during a high collagen diet. An excess of free hydroxylysine was found in Case 1 (10.0 mg./24 hr.) and Case 2 (12.3 mg./24 hr.). Case 1 also excreted an excess of citrulline (8.8 mg./24 hr.).

Since no hydroxylysine was detected in the fasting bloods of controls or of patients, a renal origin of the aminoaciduria seemed more likely than a metabolic block. Results of hydroxylysine tolerance and renal clearance tests supported this view. Total urinary hydroxyproline was in the upper range of normal.

Since hydroxylysine and hydroxyproline in animal tissues are found almost exclusively in collagen, the ratio of these amino acids in urinary peptides might be expected to be constant provided that their rates of further metabolism were similar. This was investigated in 22 subjects on low collagen diets, 19 of whom were normal individuals, and 3 patients with Marfan's syndrome known to have high excretions of urinary total hydroxyproline. After hydrolysis of urinary peptides, a direct relation was found between the excretion of total hydroxylysine and hydroxyproline.

### Morphology and Pathology of Hip-Joint at Birth

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Examination at necropsy was made of 46 hip-joints belonging to 23 infants dying before or shortly after birth; 22 joints were normally formed, 1 was dysplastic without being dislocated, and the remaining 23 were either dislocated (16) or dislocatable (7). The status of all but one of the joints was correctly assessed by manipulative examination of the hip before dissection; the only error concerned the dysplastic hip which was wrongly thought to be a case of 'fixed' dislocation. The morphology of the normal hip-joint in the 2nd and 3rd trimesters of pregnancy and the spectrum of pathology shown by the dislocated hips were discussed. The visual and radiographic appearance of the hips dissected, normal, and abnormal, dislocated, and reduced, were illustrated.

### Neurological Assessment of Gestational Age in Newborn

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Various parameters recommended by previous authors have been assessed in about 150 newborn infants of varying gestational age and birthweight. A number of additional criteria for neurological assessment, thought to be of potential value in the assessment of neurological maturity, have also been included and compared with the standard methods.

The results have shown that it is impossible to draw a clear-cut correlation between gestational age and the presence or absence of a particular reflex or posture.

The range of variation may cover 4 to 6 weeks of gestation. This is in striking contrast to the apparent accuracy of the clinical estimate of gestational age based on these parameters. The clinical impression is probably based subconsciously on the sum total of the various criteria rather than on individual ones. A scoring system for all parameters and a total score for assessment of gestational age should prove more reliable than individual criteria or the subjective clinical impression. Nerve conduction velocity varies with gestational age and provides a useful objective parameter for comparison with clinical observations.

### Initial Experience with an Impedance Apnoea Monitor

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With the ever-increasing shortage of nurses, the problem of providing adequate observation for the infant subject to apnoea has, in many units, already become serious. Recourse must be made, therefore, to instrumental monitoring, and the purpose of this paper is to report the early experience with the Airshields Impedance Apnoea Monitor.

An analysis of 708 alarms indicates that 600 (85%) occurred before the apnoea was seen by the nursing staff. In 95 (13%) there was a colour change noted at the time of the alarm. The nursing staff were not specifically asked to note the degree of cyanosis but it was recorded in 60 instances. In 49 (52%) the colour change was mild and in 11 (12%) it was moderate or severe.

Respiration was re-established spontaneously with automatic stopping of the alarm in 230 (32.5%), but in 439 (62%) the nurse had time to reach the infant and stimulate respiration before the next breath occurred. Some of these infants would doubtless have restarted breathing if left undisturbed for longer, but this figure indicates the frequency with which infants remain apnoeic for at least 20 or 30 seconds, the time lapse intervals before alarm which can be preselected by a control on the instrument. In the remaining 39 (5.5%) this information was not recorded or was misrecorded.

False alarms, i.e. alarm signals when the infant was still breathing well, occurred in 47 infants (7%); in 9 (1%) this information was not recorded. In 652 (92%) the alarms were regarded as a true indication of 20 or 30 seconds' apnoea, the time lapse interval used in most infants. In no case in this series did the alarm fail to indicate cessation of respiratory movements.

### Survey of Childhood Asthma in Aberdeen

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The sample used was a 1 in 5 of all children attending Aberdeen primary schools in 1962 and still resident in