pericarditis is active. Sometimes the pericarditis is present without any E.C.G. changes.[5]

About half the patients reported on by Kirk and Cosh also had rheumatoid lung or pleural lesions.[5] Pleural effusion is common, but pericardial effusion is rare. In the few cases in which pericardial effusion occurs the fluid closely resembles the straw-coloured non-viscous fluid found in the pleural cavity; typically it is high in protein but low in sugar. L.E. cells are found in the blood in a minority of patients,[6] but even then the diagnosis of rheumatoid arthritis as opposed to systemic lupus erythematosus is usually clear. To assess the incidence of rheumatoid pericarditis Kirk and Cosh made a prospective study of 100 inpatients with severe rheumatoid arthritis selected at random. They found it was 10%. But their patients had sufficiently severe disease to warrant admission to hospital, and so high an incidence would not be expected in patients outside hospital.

The prognosis of rheumatoid pericarditis is generally good. The condition appears to run a benign course, usually with rapid spontaneous resolution. Specific therapy does not prevent its onset or shorten its course once established. If pericardial effusion occurs, early aspiration is advised to prevent tamponade and to reduce the risk of later pericardial constriction. B. P. Harrold[7] reviewed 17 reported patients with rheumatoid pericarditis who had undergone pericardiectomy for constriction and noted that in only three did the interval between onset of arthritis and operation exceed five years. This suggests that if constriction is going to occur it is unlikely to do so in patients with arthritis of long duration. Rarely, heart failure may be the presenting symptom of rheumatoid pericarditis, and the onset of oedema in a patient with rheumatoid arthritis should prompt the doctor to consider this possibility.

Children's Eyes

Errors of refraction are almost universal, and few of us attain old age without recourse to spectacles. Yet, though the refractive state of the eye is simply the product of physical variations in the eye's anatomy which admit an exact measurement, our knowledge of these measurements in substantial numbers of the population at different ages has been very incomplete. A recent comprehensive report by Arnold Sorsby and G. A. Leary[1] is welcome not only because of the information it provides on the patterns of refractive changes in growing children but also because it helps to clear away some of the myths that are still being reported about the prophylaxis and "treatment" of short-sightedness.

The infant's eye is normally hypermetropic (long-sighted), and as the eyeball grows in length the hypermetropia decreases. The eye thus becomes more normal-sighted or even short-sighted until growth comes to an end by the age of 14. Between the ages of 3 and 14 the eye becomes about 1·2 mm. larger. But some 60% of the potential decrease in hypermetropia (or increase in myopia) that this elongation could be expected to produce is eliminated by a simultaneous reduction in the converging power of the cornea and lens, so that the resultant change in refraction is little more than 1 dioptre. And, as most infants are more than 1 dioptre hypermetropic, only exceptionally does this trend produce a frank myopia, and that of quite a low order. In about 28% of children a greater elongation of the eyeball during this growth period does cause a further shift towards myopia than can be compensated for by a slight additional decrease of the power of the cornea and lens. The change in cornea and lens is in part the direct sequel to this elongation and would itself tend to neutralize some of this adventitious myopia. The authors of the report found that bodily heights and weights were unrelated to the refraction at the beginning and end of the period of observation, and there were no obvious sex differences in these developments.

As the authors had shown in an earlier report,[2] the refraction and its components are genetically determined. And this, they state, must be assumed to apply also to the anomalous axial elongation and paradoxical changes in the cornea and lens. The provision of correct spectacles will thus have no influence on this predetermined refractive change[3 4] any more than on other organic disorders of the eyeball.

Caribbean Food and Nutrition Institute

Christopher Columbus made his first landfall in the Caribbean in October 1492 at an island in the Bahamas which he piously named San Salvador. Believing he had reached Asia, he imposed on posterity the confusing practice of calling the people of the New World "Indians" and the Caribbean islands the "West Indies." The area was at that time inhabited by the gentle Arawaks and the fierce Caribs, who gave us the word "cannibal." The Arawaks were soon exterminated by the Europeans who followed Columbus; the Caribs held out somewhat longer, and a few thousand survive today.

In the sixteenth and seventeenth centuries the islands were appropriated by European powers—the English, French, Dutch, and Spanish. They became sugar islands, devoted to sugar plantations worked by negro slaves captured in West Africa and carried across the Atlantic in the dreadful circumstances of the middle passage. After emancipation in the nineteenth century the sugar industry declined because the ex-slaves hated the sight of the sugar cane, which was being grown in increasing quantities in other parts of the tropics, and the sugar beet, efficiently cultivated in the temperate zone, began to rival the cane as a source of sucrose. During a long period of economic depression the Caribbean territories faded out of history, becoming of little importance to their European owners. Partial economic recovery came only recently, with the development of new industries such as bauxite manufacture, and the discovery, by wealthy Canadians and Americans, that the Caribbean offers an escape from winter blizzards and has lovely scenery. The tourist industry has boomed. During the last decade many of the Caribbean territories have become independent members of the United Nations.

This, roughly, is the setting of the Caribbean Food and Nutrition Institute, established in 1967. The institute has centres in Jamaica and Trinidad, each located in the campus of the University of the West Indies. At present its activities

[1] Sorsby, A., and Leary, G. A., *Medical Research Council. Special Report Series*, 1970, No. 309.
[2] Sorsby, A., Sheridan, M., and Leary, G. A., *Medical Research Council. Special Report Series*, 1962, No. 303.
[3] Morgan, O., *British Medical Journal*, 1970, **1**, 175.
[4] Gilkes, M. J., *British Medical Journal*, 1970, **1**, 758.

[1] *Journal of Tropical Pediatrics*, 1968, **14**, 52.
[2] Waterlow, J. C., Cravioto, J., and Stephen, J. M. L., *Advances in Protein Chemistry*, 1969, **15**, 131.

extend to 15 countries in the English-speaking Caribbean. Support in the form of finance or accommodation is provided by the World Health Organization (Pan American Health Organization), F.A.O., U.N.I.C.E.F., the Williams Waterman Program, the University of the West Indies, and the Governments of Jamaica and Trinidad and Tobago. The director is Dr. D. B. Jelliffe, a leading authority on the nutritional aspects of paediatrics. The professional staff, international in character, is relatively small, consisting of about nine members with experience in nutrition and related fields. A budget of $419,500 for five years covers staff, consultants, field investigations, travel, equipment and supplies, and the cost of a "training course in community nutrition" held every second year for appropriate people from the area. The institute follows an interdisciplinary approach in all its activities, including research. An entire number of the *Journal of Tropical Pediatrics*[1] has been devoted to its programme and contributions from its staff.

Protein-calorie malnutrition, reflected in high mortality in infants and young children, was until recently widely prevalent in the Caribbean. Pioneer research on the problem has been done by J. C. Waterlow and his colleagues in Jamaica.[2] In many territories it is now coming under control, with the infant mortality rate down to 40+ per 1,000 live births. The rate on the slave estates probably used to be over 500, and high rates persisted after emancipation. The conquest of protein-calorie malnutrition will be hastened by the institute's programme. A relic of slavery which affects maternal and child welfare is the matriarchal structure of society, with diminished paternal responsibility.

Another major problem for the institute to study is the dependence of the Caribbean on food imports, which is increasing year by year. This, again, derives from the monoculture of sugar in earlier days.

The Caribbean Food and Nutrition Institute has much interesting and important work to do in an area where results are readily visible and easily recorded. Progress is reported in a lively bi-monthly journal called *Cajanus*, after a legume (the pigeon pea) which is a potential source of needed protein.

Prostatic Syncope

Though rectal examination has sometimes been thought to carry a risk for patients with heart disease, D. L. Earnest and G. F. Fletcher[1 2] showed it to be safe for those with acute myocardial infarction, and their rectal findings justified the need for the examination. But since their report a number of adverse reactions to prostatic palpation have been described. R. H. Bilbro[3] has recorded eight episodes of either frank syncope or faintness during 2,500 prostatic examinations. In one patient the syncope was accompanied by a brief generalized seizure. The patients turned pale and had a bradycardia of 48 beats per minute or less. As these patients showed a precipitous loss of consciousness if they were not placed supine it must be assumed they were not lying down when rectal examination was carried out. V. A. Poleshuck[4] describes the collapse of a 30-year-old man after examination of the prostate. After sustaining a head wound while falling, he had a mild seizure and subsequently became apnoeic and pulseless. A blow to the anterior chest produced a carotid pulse with a bradycardia of 46 beats per minute. The patient regained consciousness after three minutes and recovered uneventfully. His father and paternal uncle had suffered syncopal attacks after rectal examination. Again, it seems that this patient was not lying down during the examination.

There is the occasional patient who is so dyspnoeic on lying down that rectal examination is more practical if he stands and leans forwards. For the vast majority, however, maximal information can be attained with the patient placed in the left lateral position with the buttocks at the edge of the bed and the knees well drawn up, though some doctors may prefer to have the patient in the dorsal position. The patient should be instructed to breathe freely through the mouth, as this will relax the abdominal muscles for bimanual palpation and avoid a Valsalva manoeuvre. The finger should be well lubricated and introduced slowly. Both transrectal needle biopsy of the prostate and prostatic massage to obtain prostatic secretions are perfectly feasible in this position. After either of these procedures, or if the rectal examination causes more discomfort than usual, the patient should be allowed to remain horizontal for a few minutes and then get up slowly. In this way syncope will be avoided and rectal examination will continue to enjoy its safe and valuable reputation.

[1] Earnest, D. L., and Fletcher, G. F., *New England Journal of Medicine*, 1969, **281**, 238.
[2] *British Medical Journal*, 1969, **4**, 319.
[3] Bilbro, R. H., *New England Journal of Medicine*, 1970, **282**, 167.
[4] Poleshuck, V. A., *New England Journal of Medicine*, 1970, **282**, 632.

Protean Symptomatology of Myxoedema

One of the many fascinations of clinical endocrinology is the variety of ways in which its clinical syndromes present. Despite all the achievements of diagnostic science there is still the need for some astute clinician to suspect the disease before the appropriate battery of confirmatory tests can be fired off. In future the choice of them may be eased by computer analysis of symptoms and signs, but at present a high index of diagnostic suspicion is more economical and more exact. These considerations apply with special force to the recognition of disorders of parathyroid and thyroid function and in particular to the early diagnosis of hypothyroidism.

Delays in the diagnosis of thyroid failure most often occur when the onset is gradual and protracted or when one organ or system of the body reacts out of proportion to the others. This illustrates the old principle that each patient is an individual with his own peculiar diathesis and not a predictable machine. Moreover, in this age of increasing specialization patients with undiagnosed hypothyroidism may reach the wrong specialist owing to their having presented with the symptoms appropriate to that particular specialty. They bypass the general physician or endocrinologist, who might have been able to recognize more promptly the underlying disorder.

The E.N.T. surgeon, when faced with a patient with a croaky voice, may diagnose hypothyroidism only after a laryngeal biopsy has disclosed myxoedematous tissue; or the

[1] Golding, D. N., *Annals of the Rheumatic Diseases*, 1970, **29**, 10.
[2] Fessel, W. J., *Annals of the Rheumatic Diseases*, 1968, **27**, 590.
[3] Fincham, R. W., and Cape, C. A., *Archives of Neurology*, 1968, **19**, 464.