

Pointers

Chronic Respiratory Disease: District, social class, family size, and past history of chest disease considered factors which can produce adverse changes in early life later contributing to development of chronic respiratory disease (p. 205).

Bacterial Infections: Conclusion of Professor John Crofton's Sir Robert Philip memorial lecture (p. 209).

Analgesic Nephropathy: Renal function tests showed varying degrees of chronic renal failure in patients who had abused analgesics (p. 213).

Nocturnal Frequency: Trial of emepronium bromide in elderly women showed that it reduced nocturnal frequency, possibly because it altered habit of getting up (p. 216).

Multiple Sclerosis: Herpes zoster was the only common viral infection occurring more frequently than in matched controls (p. 218).

Induced Asthma: Clinical trial suggests that disodium cromoglycate helps only a small minority of patients (p. 220).

Blood Pressure in Africans: Systolic blood pressure rose with age in both rural and urban communities in Nigeria, but in men levels were higher in urban populations (p. 222).

Blood Glucose Level: In fasting normal subjects hypoglycaemic effect of phenformin is due to inhibition of gluconeogenesis (p. 224).

Erythema Nodosum: Associated with *Pasteurella pseudotuberculosis* in two cases (p. 226).

Stress Effect: Sustained weight-loss produced in guinea-pigs by antilymphocyte serum may be due to adrenal stimulation (p. 227).

Ischaemic Renal Damage: Produced in Gunn rats in both presence and absence of obstructive jaundice (p. 229). Leader at p. 201.

Fulminating Meningococcal Septicaemia: Presenting with subarachnoid haemorrhage (p. 231).

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Personal View: Dr. W. P. Kennedy (p. 244).

L-Dopa in Parkinsonism: Role in treatment (p. 202).

Salmonellosis: P.H.L.S. report of four outbreaks (p. 256).

Annual Report of Council: For 1968-69 session, including new introduction summarizing main events, statement on ethics of transplantation, and recommendations on membership subscriptions (*Supplement*, pp. 29-59).

Proceedings of Council: *Supplement*, p. 64.

Iatrogenic Symptoms in Ophthalmology

Some of the patients seen in ophthalmological clinics have iatrogenic symptoms. There are many causes. Drugs can produce functional disturbance of accommodation and intraocular pressure, and can also affect the lids, conjunctiva, cornea, and extraocular muscles. Sometimes damage to the retina and optic nerve is irreversible¹ and it may progress after withdrawal of the drugs, as in chloroquine retinopathy.

There are two simple tests for screening patients with suspected damage to the retina or optic nerve. A disc with a one-millimetre pinhole reduces the field of vision to about 5°, corresponding to the macular area. Any macular or paramacular damage, whether functional or organic, will result in a reduction of visual acuity when the disc is placed in front of the eye, the other eye being covered. If, however, the visual disturbance is due to early corneal or lenticular damage or to defective accommodation or refraction vision will improve with the pinhole disc. While this method readily detects optic neuritis and macular damage, it will fail to detect peripheral retinal damage, which with chloroquine and phenothiazines may precede macular lesions.

A confrontation test using a red or green hatpin can also be used to detect maculopathy or optic neuritis. Whereas in normal subjects the intensity of the colour is maximal at the centre, in these conditions the intensity of the colour becomes reduced to nonrecognition in the central area, so that, relatively, the greatest intensity is seen paracentrally.

Lesions of the anterior segment of the eye are not usually serious. Allergic conditions of conjunctiva or lids may occur with sulphonamides,^{6, 7} barbiturates,⁷ and phenothiazines.^{2, 4, 5} Corneal deposition of drugs may be superficial, as with chloroquine,^{8, 9} or deep, as is seen rarely with phenothiazines²⁻⁵ and gold.^{10, 11} Keratopathy gives hazy vision, haloes round artificial lights, and, sometimes, watering and photophobia.

Paresis of accommodation occurs with drugs having parasympatholytic side-effects, such as those used in gastrointestinal disease,¹¹ allergies,¹¹ Parkinsonism,^{11, 12} and antihypertensive drugs.¹¹ This particularly affects those patients who make the greatest use of accommodation—the young and the long-sighted. The older presbyope who uses reading glasses is less affected. If blurring of vision is severe and it is desirable to continue the drug a plus lens will help. Parasympatholytic drugs also cause mydriasis, an effect shared by some tranquillizers and amphetamines.⁶ This may cause a rise in intraocular pressure in eyes with a shallow anterior chamber or with a narrow angle or in patients with family history of glaucoma.

Lens opacities may occur in the anterior subcapsular region with phenothiazines²⁻⁵ and in the posterior region with steroids.¹³ If steroid therapy is essential, these "steroid cataracts" can be allowed to progress, as they can be extracted without complication.

Transient myopia can be due to a hydration abnormality of the lens. The drugs concerned are sulphonamide^{6 7 14} derivatives like acetazolamide, tolbutamide, and hydrochlorothiazide,¹¹ and also isoniazid.¹¹

Retinal damage usually takes the form of pigmentary degeneration, and is most often due to chloroquine,^{8 9} thioridazine,³⁻⁵ or chlorpromazine.^{2 4 5} It often starts in the macula, causing blurred vision. Besides the suggested pinhole and hatpin tests, examination of the visual field will show a central scotoma (relative or absolute) or a paracentral ring scotoma. Ophthalmoscopic examination shows three stages with prognostic implications. In chloroquine retinopathy the first stage, which is reversible, is blurring of the foveal reflex. The second stage, the bull's-eye, shows a dark fovea with a lighter parafoveal ring and peripheral pigmentary degeneration. This stage is usually stationary if the drug is withdrawn, and it may be unioocular. The third stage, arterial constriction with optic atrophy, can progress even after withdrawal of the drug. Another form of pigmentary degeneration begins in the periphery, and the patient's presenting symptom is night blindness.

Objective tests which do not require much co-operation by the patient include electroretinograms and electro-oculograms, and these may detect early damage. They are of particular value in patients on long-term phenothiazine therapy in whom subjective testing may be unreliable.

Optic neuritis may be caused by numerous drugs, including chloramphenicol,¹⁵ sulphonamide derivatives,^{6 7} antituberculous agents,¹¹ phenylbutazone,¹¹ and quinidine.^{11 16} There is blurring of vision due to a central scotoma. Tetracycline¹⁷ and cortisone¹⁸ have been associated with papilloedema and benign intracranial hypertension. Loss of vision from effects on higher cortical centres may occur with digitalis and salicylates,^{6 7} coloured vision with digitalis,^{4 7} and hallucinations with monoamine-oxidase inhibitors, digitalis,^{6 7} and bromides.⁶ Diplopia due to paresis of extraocular muscles may occur with tranquillizers,¹¹ monoamine-oxidase inhibitors,¹⁹ anticonvulsants,¹¹ and chloroquine.^{8 9} Extrapyrarnidal effects can occur rarely with tranquillizers^{2 3 5} and mono-

amine-oxidase inhibitors. Raised intraocular pressure has been reported rarely in patients receiving systemic steroids.^{20 21} So when patients are taking a drug known to produce ocular damage the physician should remain alert to the risks and perform the relevant examinations and investigations. And when patients are referred for an ophthalmologist's opinion a full drug history should be sent with them.

Notching of the Carpal Navicular

In recent years there has been rapid development in hand surgery, much of which has been due to advances in functional anatomy. One aspect has been synovectomy in the hand in rheumatoid arthritis, and though this may still be considered an experimental procedure its practice is becoming widespread. The rationale behind this form of therapy is that the disease produces proliferative synovitis affecting joints, tendons, and bursae which leads to disorganization and destruction of related tissues. Bone in direct contact with synovium of the joint becomes eroded, and the bone end may be destroyed; ligaments are stretched and normal mechanics changed. Comparable damage may be seen in affected tendons. The damage appears to be greatest where the mechanical stresses are most marked.^{1 2} If the diseased synovium can be removed before damage to other tissues becomes established, then, provided the synovitis does not recur, further destruction can be prevented or at least retarded. It becomes imperative, if synovectomy is to be effective, to search for sites showing most proliferative activity and to remove all the diseased tissue.

Erosion of bone due to rheumatoid arthritis is of importance in radiological diagnosis. But, whereas the fine detail of the normal anatomy of the hand is well known in radiology, the interpretation of rheumatoid erosive changes still depends on the establishment of a norm. Changes are often difficult to find and to interpret.

The wrist is a region much affected by rheumatoid arthritis, and destructive changes are common, but the details are not well understood. Until recently synovectomy tended to be limited to the wrist joint proper, with or without excision of the distal end of the ulna. Now with more careful post-operative physiotherapy more radical clearance of the carpal joints is being carried out. Consequently accuracy in the interpretation of early radiological changes has become imperative.

During their study of the changes of degenerative osteoarthritis R. L. Swezey and S. J. Alexander³ noted a notch on the radial aspect of the carpal navicular (scaphoid) which, on radial deviation of the wrist, approximated to the radial styloid. Such notches, though previously described, have undoubtedly been diagnosed in some clinics as being due to rheumatoid arthritis. They are probably not generally known to be a normal feature of the bone. Swezey and Alexander, however, did a survey of scaphoid notches and found them to be present in a third of 19 children and 25% of 46 cases of trauma in adults. They report an increased percentage in rheumatoid arthritis (57% of 14 cases) and in hyperparathyroidism (52% of 21 cases), but the numbers of patients

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