BRITISH MEDICAL JOURNAL

LONDON SATURDAY 15 JULY 1972

Eyes after Renal Transplantation

Immunosuppressive treatment is required after renal transplantation to prevent rejection of the graft. The drugs most commonly used for this are corticosteroids (prednisone) and azathioprine, both of which can initiate or predispose to ocular complications. Those described include cataract, glaucoma, and retinitis due to cytomegalovirus infection.

Opacities lying under the capsule at the posterior pole of the lens (posterior subcapsular cataract) were described in 10 out of 26 patients who had undergone renal transplantation.[1] They were discovered between 8 and 28 months after the operation, and there was no significant difference between the amount of immunosuppressive treatment given to the patients who developed the cataract and those who did not. But this week in the *B.M.J.* (page 133) Mr. R. Porter and his colleagues report a close relationship between the steroid dosage and the development of the cataract in nine out of 39 patients who had had renal transplantation. No correlation was found between the cataract and any of the other therapeutic measures administered. The causal relationship between posterior subcapsular cataract and corticosteroid therapy for other conditions, especially rheumatoid arthritis, is well established, the reported incidence varying between 12·5 and 60%, though the cataract generally occurred later than in the transplant cases, probably because of a smaller dosage of steroid.

The lesions of posterior subcapsular cataract can be detected by simple ophthalmological examination, but a slit-lamp is necessary for their full assessment. They start as occasional vacuoles or opacities at the posterior pole of the lens. These coalesce to form discrete clumps and then larger clusters, which may eventually form a plaque at the back of the lens.[3] The iridescent appearance which may be seen in the posterior capsular region in some lenses is not considered significant.

There are several possible causes for posterior subcapsular cataract. They include uveitis, senility, myopia, and irradiation. So it is important to exclude these before blaming steroid treatment. But it is possible that steroids will enhance other causes of cataract, especially *x*-irradiation, which is often necessary after renal transplantation. In none of Porter and his colleagues' cases was the vision significantly affected, but it might become so if patients have to receive steroids for long at a relatively high dosage. It has been suggested that lens opacities are less likely to develop or progress if the steroid dosage is kept below 16 mg a day[4] or if the treatment is intermittent, but the need for steroids must be determined by the general state of the patient, and if cataracts do develop they can be dealt with surgically.

Increased intraocular pressure is not a common complication of systemic steroid therapy, though it occurs much more frequently with topical administration. The reason for the difference is not fully understood, but it has been shown that topical therapy reduces the facility of outflow of aqueous humour from the anterior chamber of the eye, thus causing a rise in pressure, while an intravenous injection of hydrocortisone in an experimental animal will reduce both the formation of aqueous humour and the facility of outflow. So one effect will tend to counteract the other, though slight pressure changes might be expected to occur.[5]

From the published reports it seems that systemic steroid therapy in high doses can cause glaucoma in a small percentage of patients, and routine screening will be required to detect them, but small rises in pressure need not cause undue concern. The treatment may pose some difficulties, for meiotic drops in these cases will seriously reduce the vision if posterior subcapsular cataracts are present, as the small pupil restricts the light entering the eye to the axis of the lens. Alternative treatment with acetazolamide tablets and neutral adrenaline drops may be required.

Cytomegalovirus retinitis is the most serious ocular complication of renal transplantation. De Venecia and colleagues[6] described the evolution of one case in which discrete white patches appeared in the retina together with sheathed blood vessels. Later the white areas became swollen and confluent, with overlying haemorrhages which seemed to be due to vascular occlusions. The retina developed a brownish tinge in the affected areas, but there were no signs of the choroid being affected. At necropsy various stages of infection were seen in the retina, early lesions showing numerous inclusion bodies, both intranuclear and intracytoplasmic, with the characteristic clear haloes surrounding them, in a retina of normal appearance. In later lesions the retinal architecture was disorganized and in still older lesions it was atrophic. Cytomegalovirus bodies were also present in the vascular endothelium, causing occlusion of the vessels, and this was thought to be the route of the ocular infection. Dr. Porter and his co-workers describe two similar cases in their series of 39 patients, one

unilateral, the other bilateral. Both patients survived, and the presumptive diagnosis was made on the basis of the rising cytomegalovirus antibody titre, up to 1/1,280. They found a high titre (1/160-1/320) in a further eight patients, confirming previous reports[7] of the importance of this infection after renal transplantation. Cytomegalovirus is widespread in the general population.[8] Whether the postoperative infection is due to reactivation of virus or to a recently acquired infection, possibly from blood transfusion, is debated, as is the further suggestion that cyclophosphamide particularly predisposes to this infection, which probably does not occur clinically in adults unless the immune mechanisms are seriously disturbed. No treatment for the infection has been suggested, and the best hope for the future lies in better tissue matching so that immunosuppressive treatment may be minimized. But until then an ophthalmologist should be included in the team to monitor the possible ocular complications.

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3 Crews, S. J., *British Medical Journal*, 1963, **1**, 1644.
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5 Oppelt, W. W., White, E. D., jun., and Halpert, E. S., *Investigative Ophthalmology*, 1969, **8**, 535.
6 de Venecia, G., Zu Rhein, G. M., Pratt, M. V., and Kisken, W., *Archives of Ophthalmology*, 1971, **86**, 44.
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What's in a Name?

When it debated last week the Chambers Report[1] into the Association's constitution and organization the Council quickly found itself up against the explosive word "autonomy" and all it stands for in B.M.A. thinking and tradition. Sir Paul Chambers, in his radical cure for the B.M.A.'s ills, will have none of autonomy: instead he advocates a unitary approach which would exclude non-members from B.M.A. activities. Not unexpectedly the G.M.S. Committee, while acknowledging the need for change, has voiced[2] its disagreement with this part of the cure, though most other standing committees have generally accepted the report. The Council, an account of whose meeting will be appearing in next week's *Supplement*, found itself unable to make up its mind on this hot issue—from which much else in the Chambers recommendations flows—and contented itself with preparing an interim statement on what it could immediately accept (also to be published next week) and remitted to a working party the examination of those two seemingly mutually exclusive alternatives: federation in some form or other and Sir Paul's brand of unification. Also deferred for another special meeting of the Council (at the end of August) were matters depending on the answer to the autonomy question such as the best way of increasing the representation of junior doctors—an end which commands general support—and the composition of the central committees. This programme aims to give Divisions time to debate the Council's final advice before the Special Representative Meeting planned for mid-November. As a day's work some Council members unkindly suggested that this was the clearest justification of the need for Chambers anyone could wish for; others countered, it is only fair to add, that something so far-reaching as the constitution must not be rushed at.

No-one seriously questions that Sir Paul Chambers is right in his basic diagnosis. The Association's present constitution is far too blunt a weapon for the tasks of the 1970's. Involved in a National Health Service soon to be reorganized and faced by quick Government action the B.M.A. finds timely response often impossible. Time and again the Council has found itself in the unenviable position of either having to anticipate the wishes of the Representative Body or of having to go back to it for fresh instructions. It is fair comment, too, that the B.M.A. administrative machine is being choked to death by repetitious debate, avalanches of paper, and needless preoccupation with detail. What was once hailed as a model of democracy is now only too clearly a hindrance to democracy's free expression.

Sir Paul is in general agreement with the statement of the Association's objectives in its century-old Memorandum of Association: "To promote the medical and allied sciences, and to maintain the honour and interests of the medical profession." His problem has therefore been firstly to reconcile accountability of the executive with ability to act expeditiously and secondly to suggest a structure appropriate to the B.M.A.'s role in the nation's future Health Service—as he puts it, to let it "co-operate whole-heartedly with the Government in the task of making the National Health Service successful." His solutions include the replacement of the present B.M.A. geographical structure by one to match the new N.H.S. districts and areas, with strong B.M.A. area councils whose membership will be elected on a craft basis by the local B.M.A. members; separation of the area councils' advisory and negotiating functions; much greater junior representation throughout the Association; retention of the Representative Body at its present size but differently elected and with the explicit task of exercising broad, but no longer detailed, control of policy; and finally, both responsible to the R.B., a small central executive (mainly composed of committee chairmen) in place of the Council and reformed central committees, the latter wholly elected by the R.B. Sir Paul's constitution would contain no place for the non-member, though he envisages situations where joint committees with outside bodies would be desirable. Such joint committees, however, would not be executive committees of the B.M.A.

The Council had no doubts of the need for B.M.A. strength at N.H.S. area level, and approved reorganization of B.M.A. boundaries to allow this. It agreed too that only B.M.A. members should serve "as of right" on the proposed B.M.A. area councils, but added the rider that existing provision for non-members to serve on standing committees should be retained. Sir Paul's view of the new R.B. and its functions was endorsed in principle and detailed recommendations promised, and *pour encourager les autres* the Council, while disagreeing on the suggested composition, nobly assented to being decimated to become "a small central executive body." It supported the right of Divisions to go on submitting motions to the R.B., but agreed that these should be channelled through the area councils, which could if they wished add a comment on the inappropriateness of a motion for discussion at the Representative Meeting.

This leaves for August "autonomy" and what flows from that. Sir Paul proposes an organization which is logical and certainly streamlined—some say even too business-like. But the test is whether it will facilitate, or the reverse, the