

Requirements and characteristics of 500 consecutive patients consulting an ophthalmic medical practitioner

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Summary

This paper reports the results of a prospective survey on 500 consecutive patients consulting an ophthalmic medical practitioner. The reason for consultation, and results of refraction and examination were analysed.

The majority required only a refraction. One in 8 visits was for primary ophthalmic health care other than refraction. An abnormality of the visual system (other than refractive error) was present in 19% of patients. Five per cent required referral to their general practitioner.

Introduction

Primary health care is available to patients in the United Kingdom under the provisions of the National Health Service, and may be defined as the first interaction between the patient and a professional adviser. A patient with an ophthalmic problem (i.e. any visual or ocular disorder) has a choice of where to seek advice. He may choose to consult his general practitioner, an ophthalmic optician, an ophthalmic medical practitioner, or an eye hospital casualty department. Of these, only the ophthalmic optician is not medically qualified.

The studies by Vernon¹ and Jones *et al.*² have shown that for many patients the eye hospital casualty department is where ophthalmic primary health care is provided. The provision of such care by general practitioners has also been studied^{3,4}. The role of the ophthalmic medical practitioner in relation to the provision of ophthalmic primary care has not been studied.

Ophthalmic medical practitioners (OMPs) are registered medical practitioners with a specialist qualification in ophthalmology and at least 2 years experience in hospital-based ophthalmology approved by the Ophthalmic Qualifications Committee. The status of an OMP is governed by a government statutory instrument⁵. OMPs provide care under the General Ophthalmic Services, financed by family practitioner committees, usually at the premises of a dispensing or ophthalmic optician.

Materials and methods

Five hundred consecutive patients seen by an OMP were studied. The age and sex were recorded, and the patient asked whether the consultation was for a routine sight test. If not, the principal reason was sought. Streak retinoscopy and a subjective refraction was performed for each patient. Distance spectacles were prescribed if they produced at least a 2 line improvement on uncorrected vision using a standard Snellen chart, and a reading correction if required to read N5 (or best achievable) comfortably. After refraction and ophthalmoscopic examination, the

spectacle requirements and any ocular or visual abnormality were recorded.

Data were recorded and analysed using a computerized data base (Clare's Beta-Base, Clare's Micro Supplies, Northwich) and a BBC microcomputer (Acorn Ltd, Cambridge).

Results

The study group consisted of 224 males and 276 females, aged between 1 and 95 years. The mean age for males was 42.30 years (range 4-81, standard deviation (SD) 17.55), and for females was 41.49 years (range 1-95, SD 20.41).

In 64 cases (12.8%) patients were not seeking a routine sight test. This group included 4 referrals from general practitioners. A summary of the reasons for consultation other than routine sight testing is given in Table 1. The commonest complaint was headache (34 patients). Fourteen patients were seeking screening for ocular disease (7 for glaucoma, 3 for cataract, 3 for squint, and 1 for diabetic retinopathy); this represents 21.87% of those not seeking a sight test. If patients with headaches are considered to be being screened (e.g. for early papilloedema), then 75% of consultations which were not for a routine sight test were for screening purposes.

Thirty-four patients sought consultation because of headaches. This subgroup was predominantly (76%) female and was younger (range 11-58 years; mean 28.8) than the overall study group. No optical abnormality was found in 18 patients (53%), but 10 were myopic, 4 presbyopic, and 2 hypermetropic. Two patients had ocular abnormalities; one had a conjunctival naevus and the other 5 dioptres of anisometropia. Those with no optical or ocular

Table 1. Reasons given for consultation sought by 64 patients not requiring a routine sight test

<i>Reason consultation was requested</i>	<i>Number</i>
Headaches	34
Glaucoma screening	7
Visual disturbance (non-refractive)	6
Squint screening	3
Cataract screening	3
Watering eye(s)	3
Dizziness/Giddiness	3
Ocular pain/grittiness	3
Miscellaneous	3

One patient requested screening for both cataract and glaucoma, and thus appears twice. Miscellaneous group were requesting screening for diabetic retinopathy, blind registration, and removal of a lid lesion (basal cell carcinoma)

Table 2. Characteristics of patients and spectacle correction required

Spectacle correction	Number of patients	Sex	Age range (years)	Mean age (years)	Standard deviation
None	46	F	2-43	20.28	11.96
	35	M	4-54	24.06	13.57
Distance	89	F	1-82	28.25	13.72
	81	M	10-50	28.88	10.76
Reading	48	F	15-69	50.67	11.00
	46	M	12-81	49.19	10.41
Distance + reading	91	F	38-95	59.52	9.92
	64	M	38-79	58.10	9.17

abnormality were advised to consult their general practitioner if their headaches persisted.

A spectacle correction was required by 419 patients (83.8%). The types of correction and characteristics of the patients are shown in Table 2. It can be seen that all patients whose age was greater than 54 required a spectacle correction. A distance correction was required principally by young myopes, although a small number continued to manage without a reading correction beyond middle age by removing their spectacles. In contrast, a reading correction or correction for both near and distance was predominantly required by patients in their 5th decade or older, and a few young hypermetropes.

An abnormality of the visual system was present in 99 patients (19.8%). The commonest abnormalities were amblyopia, and lens opacities. Abnormalities are detailed in Table 3.

Table 3. Abnormalities of the eye or visual system in 500 consecutive patients

Abnormality	Number of patients
Amblyopia	22
Cataract	18
Optic disc cup asymmetry	8
Macular degeneration	6
Tilted optic discs	5
One-eyed patients	4
Aphakia	4
Squint	4
Bergmeister's papilla	3
Ptosis	2
Anisometropia > 5 DS	2
Myelinated retinal fibres	2
Retinal vascular anomaly	2
Miscellaneous	19

Optic disc cup asymmetry was considered an abnormality if the asymmetry was at least 20% of the disc diameter. The 'miscellaneous' group included one each of the following: background diabetic retinopathy, proliferative diabetic retinopathy, Duane's syndrome, pseudopapilloedema, papilloedema, astrocytic hamartoma of the retina, optic nerve pit, flecked retina syndrome, conjunctival naevus, old choroiditis, basal cell carcinoma of the lid, vitreous haemorrhage, nasolacrimal sac mucocoele, bilateral colobomata of the iris and choroid, unilateral acute red eye (probable herpes simplex virus keratitis), coloboma of the optic disc, and optic atrophy.

Twenty-five patients were referred to their general practitioner for further management; of these 21 (84%) had attended for a routine sight test. The remaining 4 sought consultation because of squint (2 cases), reduced visual acuity and a nasal lesion thought related to spectacles. The commonest reason for referral was asymmetric cupping of the optic discs (10 patients, 40%), followed by unilateral cataract (4, 16%), bilateral cataract (3, 12%), and squint (2, 8%). Other causes for referral were dry senile macular degeneration, disciform maculopathy, flecked retina syndrome, astrocytic hamartoma of the retina (probable epiloia), basal cell carcinoma of the nose, and optic disc neovascularization (one patient each).

Discussion

This survey shows that OMPs see a relatively balanced population from all age groups. This contrasts with the hospital-based findings of Jones *et al.*² where males predominated the under 50 age groups. This is presumably as a result of occupational ocular trauma which would be expected to present to a hospital.

The data provided here confirms the view that the majority of patients seen by an OMP are seeking a refraction, and that the majority require a spectacle correction. However, one visit in 8 was for primary ophthalmic care other than refraction, and this was frequently for screening purposes.

The incidence of an abnormality of the visual system (other than simple refractive error) was one in 5, with amblyopia and cataract the commonest diagnoses. Since the majority of patients were seeking routine sight tests, these may accurately reflect the prevalence in the population, although there may be an inherent bias as young emmetropes may not frequently seek a sight test.

Since OMPs are not issued with prescription pads by family practitioner committees, they are only able to advise over-the-counter pharmaceutical preparations, and to refer the patient to their general practitioner. Those referred to the family doctor will usually require onward referral to an eye department. Those patients who only require a refraction (the majority) might equally well be served by an ophthalmic optician⁶ who is not medically qualified, but who should be able to perform the screening procedures for diabetic retinopathy⁷ and glaucoma currently performed by OMPs. This survey suggests that screening is the principal contribution made by OMPs to primary ophthalmic health care.

Dart⁴ has identified a need for an ophthalmologist in community health centres, and has shown that this can be cost-effective. If the additional patients currently seen by OMPs, and who are not seeking a routine sight test were channelled into such a scheme it would become even more cost-effective. It is possible that many OMPs would welcome the opportunity to exercise their medical skills in the setting of a community health centre⁸.

This study confirms the conclusion of the Faculty of Ophthalmologists⁹ that the medical expertise of OMPs is currently under-utilized. In view of the heavy demands placed on the limited hospital eye service, the role of the OMP in the provision of ophthalmic primary health care should be re-assessed, and the suggestion that they be integrated into primary care centres^{4,8} carefully considered.

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