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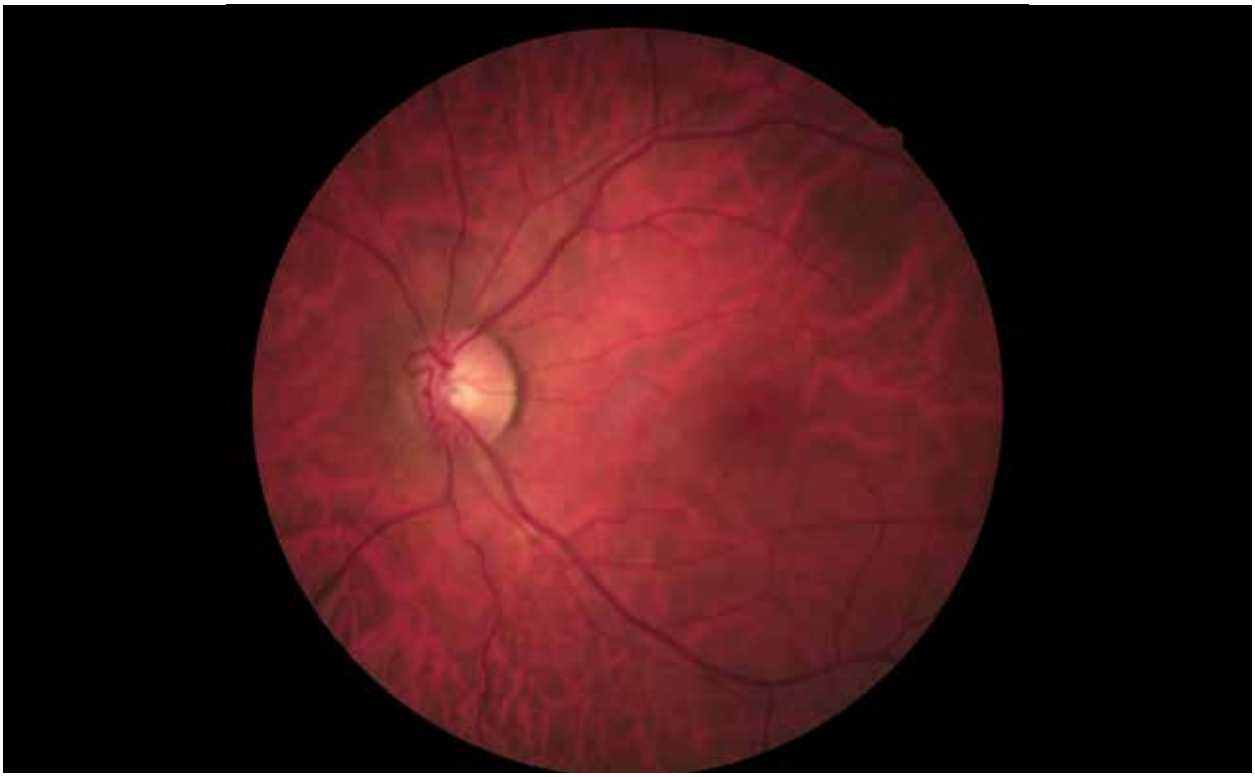

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It's often said that the one constant in life is "change." Change can be good or otherwise; it can be self-initiated, or it can be beyond one's control. However change happens, one must deal with it.

This summer has been one of many changes for your scribe. On the unhappy side, no less than five people, each of whom I have known for at least 20 years, passed away unexpectedly. While a few had been in failing health, their passing was still unexpected with no chance to say goodbye. On the happy side, Lucy and I welcomed our first grandchild in mid-June. Needless to say, young Kobe has his grandparents firmly wrapped around his tiny fingers; nevertheless, we can send him home.

The *Canadian Journal of Optometry* has also undergone some changes. Personnel changes at our publisher resulted in the sudden departure of Rose Simpson as managing editor. With this issue we welcome Scott Bryant as our new managing editor. Scott's first tasks were to complete the layout and edits for this issue and prod the editor to finish his editorial!

We also welcome Dr. Paul Karpecki as our latest regular contributor with his column "Innovations in Eye Care." Dr. Karpecki's article on stem cell technology applied to eye care is timely, as the latest *National Geographic* magazine headlines its article on "The End of Blindness." The use of stem cells is but one of many technological advances that are expected to revolutionize the treatment of eye disease, and how optometry as a profession adapts to these technologies will determine its future role in health care.

B. Ralph Chou, MSc, OD, FAAO
Editor-in-Chief

On dit souvent que la seule constante dans la vie est le « changement ». Le changement peut être bon ou pas; il peut être choisi ou incontrôlable. Une chose est certaine, des changements se produisent et nous devons nous y adapter.

Cet été, vos journalistes ont connu de nombreux changements. Malheureusement, pas moins de cinq personnes, que je connaissais toutes depuis au moins 20 ans, sont décédées subitement. Certaines avaient une santé en déclin, mais leur décès s'est tout de même produit subitement et ne nous a laissé aucune chance de leur dire au revoir. Sur une note plus joyeuse, Lucy et moi-même avons accueilli notre premier petit-enfant à la mi-juin. Il n'est pas nécessaire de vous dire que nous sommes déjà sous le charme du jeune Kobe; néanmoins, nous arrivons à le renvoyer chez lui.

La *Revue canadienne d'optométrie* a également connu quelques changements. Des changements de personnel chez notre éditeur ont mené au départ soudain de Rose Simpson qui était directrice de la publication. À la suite de son départ, nous avons accueilli Scott Bryant qui est devenu notre nouveau directeur de la publication. Les premières tâches de Scott étaient de terminer la mise en page et les modifications pour ce numéro et d'inciter l'éditeur à terminer son éditorial! Nous avons également accueilli le Dr Paul Karpecki qui est notre dernier contributeur régulier avec sa chronique « Innovations dans les soins oculaires ». L'article du Dr Karpecki sur la technologie des cellules souches appliquée aux soins de la vue est opportun puisque le dernier numéro du magasine *National Geographic* met en vedette son article « The End of Blindness » (la fin de la cécité). L'utilisation des cellules souches est une des nombreuses avancées technologiques qui devraient révolutionner le traitement de maladies oculaires et la façon dont l'optométrie en tant que profession adapte ces technologies déterminera son rôle dans les soins de santé.

B. Ralph Chou, M. Sc., O.D., F.A.A.O
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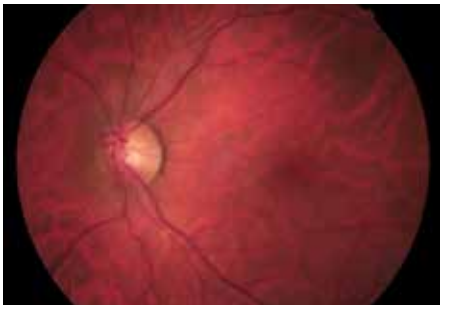

Image of the left fundus 8 months after initial presentation of CRVO.

Becoming Visionary: Evaluation of a Comprehensive Eye Exam Clinic Within a Geriatric Rehabilitation Setting

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Abstract

In the older adult population, visual impairments are highly prevalent, but largely undiagnosed. Research has shown that such visual impairments increase the risk of falls, depression, and mortality amongst older adults. Studies are lacking that examine the impact of implementing an eye exam clinic within a hospital setting. The goal of this proposed study was to evaluate the feasibility of having community optometrists offer a Comprehensive Eye Exam (CEE) Clinic for detecting vision loss within a geriatric rehabilitation setting. Findings revealed 83% of participants were diagnosed with detectable vision problem of which more than half were previously undiagnosed. One third of participants had not seen an eye specialist within the past two years. The CEE Clinic was implemented with minimal expenses, low workload burden on staff, and detected significant vision issues among many participants.

Introduction

Changes in vision are common within the older adult population. Findings indicate that visual impairment amongst older adults doubles the incidence of falls and mortality rates, triples the incidence of depression, and quadruples the incidence of hip fractures.[1–3] In contrast, research has found the improvement in visual function resulting from treatment of vision disorders is accompanied by improvement in life satisfaction, mobility, mental health, home activities, and community activities.[4] Estimates indicate 20–50% of seniors have undetected reduced vision.[5] Of those who have visual impairment, over 50% of impairments are due to easily correctable conditions.[6] Most of these ocular conditions such as refractive errors and cataracts are treatable, especially if caught early, thus emphasizing the importance of screening programs.[7]

Studies are lacking that examine the feasibility and impact of implementing a screening program within a hospital setting, making it difficult to draw firm conclusions about whether hospitals should implement screening programs for their older patients in hopes of minimizing visual deficits amongst their older patients.

Study Goals and Objectives

Goal: The goal was to evaluate the feasibility of having community optometrists offer a Comprehensive Eye Exam (CEE) Clinic for detecting vision loss within a geriatric rehabilitation setting.

Objectives: The first objective was to determine outcomes related to implementing the program: number of patients assessed, prevalence of patients with visual concerns and deficits, frequency of various visual diagnosis, number or patients referred for further visual assessment; and number of patients who booked follow-up appointments.

The second objective was to examine personal experiences with the pilot: enablers (i.e., things which assist the pilot in being successful) and challenges as viewed by the staff, patients, and community optometrists involved in the CEE Clinic.

Methods

Design: This was a descriptive feasibility mixed-methods study. Feasibility studies are used to determine whether an intervention is appropriate for further testing. The study site consisted of two geriatric rehabilitation units, each with 36

beds at a rehabilitation hospital in Western Canada. Generally, patients on these units are admitted from acute care hospitals. The sample comprised 55 participants. Patients who reported having had an eye exam within the last year were excluded from the study to reduce redundant health care provision. The CEE clinics took place April-July, 2014. The Health and Research Ethics board of the local university approved this study.

Recruitment: All patients admitted to the units during the clinic time period were asked if they would like to receive further information about the study. If patients agreed, a research assistant met with them to discuss the study and determine eligibility. One hundred and thirty-eight patients were approached, of which 33 patients stated they had already seen an eye specialist within the past year, 5 had significant cognitive impairments limiting their ability to follow directions, 55 accepted to participate, and 45 declined. Reasons for declining included: discharged prior to clinic appointment (n=18), admitted to isolation unit (n=7), or not interested (n=20).

Intervention

Objective 1. A community optometrist performed a comprehensive eye exam with a portable community evaluation kit in an assessment room within the hospital. The comprehensive eye exam comprised of a case history, acuity test using the Snellen Eye Test, neurological assessment with standard non-computerized tests (pupil reaction, confrontation visual fields, eye muscle movements, etc.), prescription assessment, and eye pressure test. The eye exam was performed in a well-lit room. For the visual acuity exam, the Snellen eye chart was placed 10 m from the patient. The left eye was covered and the right eye was evaluated in a progressive fashion and then the left eye was independently evaluated in the same progressive manner. The acuity test focused on the habitual visual acuity (i.e., the vision participants present with at time of examination with or without glasses) as the pilot was trying to analyze current functional level of vision. Intraocular pressure (IOP) was tested using the Tonopen, a small handheld, compact, portable applanation tonometer. The Tonopen has been shown to be a valid and reliable tool to test IOP.[7] Intraocular pressure testing can help identify presence of glaucoma.

Approximately 8 patients were seen per 3-hour clinic, which was held one day every 2 weeks with one of two community optometrists. Patients with detected eye disease were referred for further eye services. If the optometrist recommended a visit to an ophthalmologist, then the patient's doctor was informed of these findings and the optometrist made a phone call to set up a referral assessment with an ophthalmologist at the nearby acute care hospital.

Three to 4 months after the CEE clinic, a follow-up phone call was made by the research assistant to all participants who were recommended to seek further visual evaluation, to determine whether they pursued a follow-up appointment.

Objective 2. Personal experiences regarding the pilot clinic were gathered in both written and oral format. Written feedback was obtained from the two optometrists to examine their experiences in taking part in the CEE Clinic. Probing questions were asked such as: "Can you tell me about your experiences with respect to the implementation the Comprehensive Eye Exam Clinic?" During the clinic and follow-up phone calls, staff and patients' comments regarding their experiences with the clinic were also recorded.

Analysis

Research Objective 1: Patient data was entered into the computer program using Statistical Package for the Social Sciences (SPSS). Descriptive statistics such a means, standard deviations, and percentages were analyzed relating to patient demographics and data relating to visual exams.

Research Objective 2: Content analysis was used to analyze the data. Themes were refined as patterns emerged.

RESULTS

Patient characteristics

The patient population targeted comprised of older adults admitted for geriatric rehabilitation. Table 1 includes demographic characteristics of the 55 participants.

Table 1. Characteristics of the Study Sample

Age (mean, SD)	80.5 (8.44)
Sex (female, *n* %)	31 (56.4)
Length of Stay in days (mean, SD)	42 (20.3)

Screening characteristics

The mean length of time since the last eye exam was 3.4 years (SD= 3.8 years). The range was 6 months to 20 years. Even though patients were only included in the pilot if they told the recruiter they had not seen an eye specialist within the year, several later told the OD that they indeed had seen an eye specialist within the year. Thirty-five people (63.6%) reported having seen an eye specialist within the past two years. Table 2 illustrates in greater detail the range of time since last eye exam.

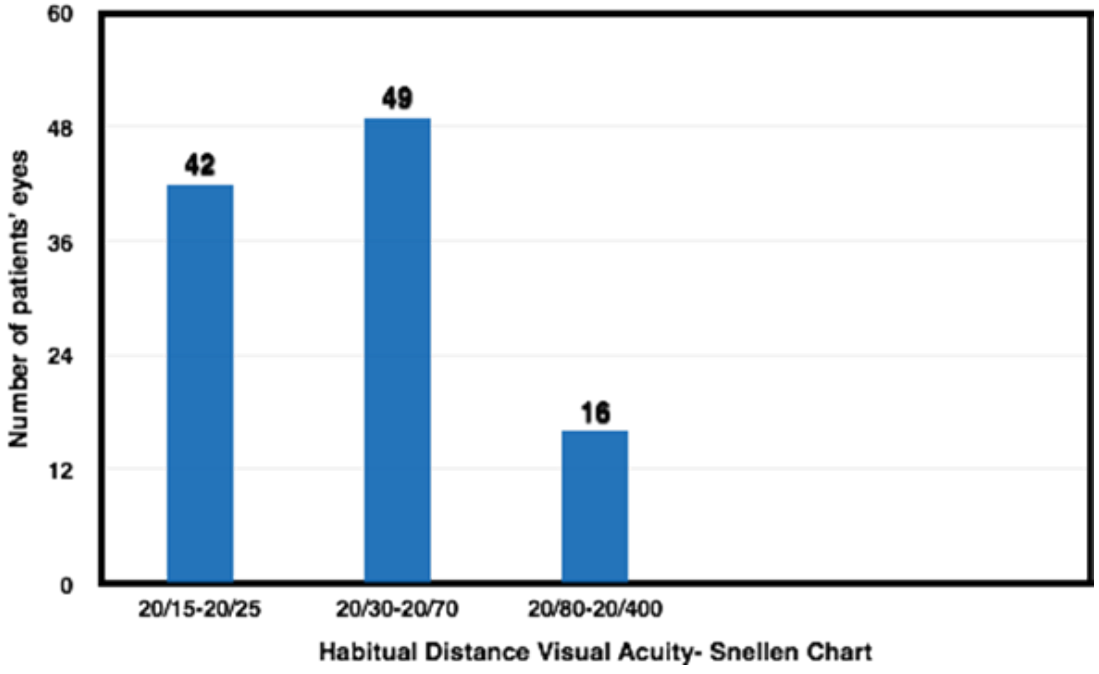
Table 2. Length of Time Since Last Eye Exam

≤ 12 months (*n*, %)	18 (32.7)
13–24 months (*n*, %)	35 (63.6)
25 months to 5 years (*n*, %)	7 (12.7)
>5 years but <10 years (*n*, %)	13 (23.6)
10 years or more (*n*, %)	6 (10.9)

Table 3. Detected Eye Conditions

Cataracts (*n*, %) Previously undetected	20 (40) 12
Macular degeneration (*n*, %) Previously undetected	9 (16) 4
Glaucoma (*n*, %) Previously undetected	5 (9) 3
Blepharitis/ Dry eye syndrome (*n*, %) Previously undetected	8 (15) unknown
Other visual problems (e.g., acuity changes) (*n*, %) Previously undetected	7 (13) unknown
Retinal hemorrhage (*n*,%) Previously undetected	1 (2) 0

Figure 1. Visual acuity results with Snellen Chart.



Vision screening and eligibility for referral

At the beginning of the eye exam, patients were asked whether they had any visual concerns. Twenty-one participants (38%) replied that they did indeed have a concern (e.g., blurred vision, "not seeing too well," was already told that cataracts were starting to develop). Upon completion of the examination, 46 participants (83%) were deemed to have detectable vision problems. The most common finding was the presence of cataracts (20 participants). Of the 35 eye diseases detected by the community optometrists, 19 (54.3%) were previously undiagnosed. Table 3 outlines the various detected eye conditions.

Testing patients' left and right eyes for their habitual visual acuity, 59% of participants presented with mild to severe visual impairment of 20/30 or greater. Fifteen percent of participants presented with moderate or severe visual impairment of 20/80 or greater. Figure 1 shows the results of the clinical examination using the Snellen Chart.

Using the Tonopen, the mean IOP was 15±4.01 mm Hg. Only three participants presented with an IOP of greater than 21 mm Hg.

Referrals

Twenty-seven participants (49%) were recommended to pursue further follow-up. We examined the willingness of these participants to book follow-up eye care services after the CEE in the hospital. When the optometrists discussed with certain participants the need for further follow-up after their examination, all participants showed interest in pursuing follow-up. Three to four months after discharge, the research assistant called each of these 27 participants who were recommended for further examination. Twelve participants (44%) had already followed up independently to book their appointment prior to the research assistant's initial phone call. Fourteen of 27 older adults (52%) had not yet made an appointment when the research assistant contacted them. One patient could not be reached by phone. For many participants, the three-month follow-up phone call served as a reminder for them to book their appointments.

Of the twenty-seven participants who were advised to have further follow-up, 16 were recommended to see an optometrist and 11 were referred to an ophthalmologist. Table 4 denotes the patient follow-through with these recommendations. Three to four months after discharge, there was moderate willingness amongst participants (66%) to pursue further follow-up.

Patients who were referred for, but did not attend a second exam, were contacted and asked why they did not follow-up. Barriers included: participants forgetting to book appointment, difficulty finding transportation and/or a family member to get them to an appointment, and too many other health problems and/or doctor appointments that needed to be dealt with prior to making an appointment for a follow-up eye exam. Several said they "could not be bothered" to book the appointment.

Experiences

Staff responses to the program

The CEE pilot clinic was well received by staff. Nursing staff, social workers and unit clerks reported that the clinic did not add to their workload. An onsite CEE clinic was viewed as a convenient way to have patients' eyes examined, as patients did not require being transported to another hospital site. One therapist shared that the CEE clinic was "another tool to the puzzle" to assess patients' functional mobility related to visual acuity. Another commented that having access to an optometry assessment "compliments the comprehensive assessment and perhaps can look at the cause of the patient's dizziness and instability."

Table 4. Patient Follow-Through with Follow-Up Appointments

Referral to see an optometrist *n*=16	
Booked appointment	9
Not interested in booking	4
"I will call, but haven't yet"	3
Referral to see an ophthalmologist *n*=11	
Booked appointment	9
Not interested/did not answer phone	2

Patients' experiences

Patients reported being pleased with the services and convenience of the clinic being on-site. Several challenges were mentioned regarding patients' lack of regular eye care in the community. The biggest challenges were finding transportation to get to the eye exam and knowing whom to contact to get their eyes examined.

Several patients spoke of being overwhelmed with their other health conditions and numerous medical appointments, thus making it harder to pursue eye appointments saying they were too busy with so many appointments.

One gentleman with glaucoma shared:

> ***"As soon as I can fix this (walking) then I can focus on my eyes. But right now I need to focus on my legs. This study reminded me to get back on track to having my eyes checked every six months. I let it (vision checkups) go because I had health problems."***

Some participants and their family members were frustrated by the fact that they needed to do a second more in-depth evaluation at an optometry clinic once discharged. They were hoping the in-house clinic would be able to diagnose visual problems immediately and provide appropriate eyewear prior to leaving the clinic. However, as a temporary clinic, the optometrists did not have the equipment to accurately measure refraction.

Optometrists' experiences

The clinic was well received by the two community optometrists. One reported:

> ***"I think the idea of having a primary eye care clinic within the hospital is an excellent idea. I would love to see optometry and vision care incorporated into the treatment received by patients. I was honestly amazed at the wide range of visual abilities…. Many of them had fairly extensive vision problems, and this was only in one***

small sub-section of the hospital. Some of these problems were longstanding, but others were more active and required treatment. Some were less urgent like cataracts, but still these can impact personal mobility. Many other vision care problems including visual field loss might impact how a patients' rehab is performed."

The optometrists noted several challenges. Their services were limited due to the temporary nature of the screening clinic. Optometrists were not able to accurately measure refraction with their travel eye exam kit. Nor could they complete visual field tests for patients who would benefit (e.g., patients who had experienced a stroke). Another challenge was the larger than anticipated amount of paperwork required in the hospital compared to working in the community. The size of one of the two assessment rooms also posed a problem. It was 10 feet long by 9 feet wide, making it difficult to navigate patients in wheelchairs.

Discussion

Findings from this pilot study suggest it is feasible to implement a Comprehensive Eye Exam clinic for older adults within a hospital setting. The CEE clinic was implemented with minimal expenses, low workload burden on staff, and detected significant vision issues among many participants. The hospital and patients of all ages could benefit from having a CEE clinic.

It is concerning that more than one third of participants had not had their eyes examined in the past 2 years. The Canadian Association of Optometrists (CAO) recommends adults aged 65 years or older undergo an eye examination annually.[8] The Canadian Ophthalmological Society recommends comprehensive eye exams every two years for people aged 65 and older who have no risk factors.[9] More concerning is the fact that 10% of participants had not had an eye examination in over 10 years. There were inconsistencies between participants reporting having visual concerns at the outset of the eye exam (38%) and the number of participants who were diagnosed with a detectable vision problem (83%). This is supported in the literature. The U.S. Preventive Services Task Force[10] reported patient self-reports are not as accurate as undergoing comprehensive eye exams in determining visual problems. Individuals under report visual concerns, in part because they progress slowly.

The biggest challenge to implementing a temporary screening was the requirement of many patients to follow through with an external second appointment at a later date. In this study, the attrition rate was quite high for these follow-up appointments. Only 44% of participants followed up with a second booking, and many of these were made by the optometrist who booked the appointments for the ophthalmologist. Even with a staff member performing reminder phone calls, the booking rate increased modestly to 66% of participants. This appears to be resource intensive.

In order to alleviate this barrier to providing optimal eye health for seniors, a permanent in-house eye care clinic could allow for the accommodation of specialized equipment. This would enable the testing for refraction and eyeglass prescription. Fixed costs of such a clinic would largely be related to start-up costs and costs for equipment and overhead. Fixed costs would include: a computer to increase efficiency and charting, equipment stands and slit lamps that would be able to accommodate both individuals with and without mobility issues, an eye chart, occluder, hand held equipment, auto refractor, diagnostic drops, tissue, exam charts, prescription pads, sink to wash up, and antiseptic cleaner. Start up of such a clinic in-house is estimated at $50–75,000.

In addition, the clinic could benefit from a full time clinic administrator and part-time or full time optometry assistant to ensure continuity of care, if multiple doctors were used and to assist on clinic days. Optometrists would bill the province for their eye exam services, thus causing no additional salaried costs to the hospital.

Such a clinic could enable further in-depth evaluations of patients, which can assist the patient and their health care team in providing additional information regarding patients' visual abilities impacting the teams' comprehensive assessments and interventions. Such a clinic could also minimize redundancy of follow-up evaluations outside the clinic for those with concerns regarding acuity and prescription changes; as well as enabling participation of those seniors who have challenges finding transportation to access community clinics.

This pilot study was a pioneer of its kind, as it was the first study involving optometrists performing hospital-based comprehensive eye exams within the province of Alberta. Typically ophthalmologists have done these hospital-based exams. However, the cost burden on the health system is significantly higher when ophthalmologists, opposed to optometrists, perform these initial comprehensive eye exams.[11] It is timely to explore the possibility of optometrists performing initial in-house comprehensive eye exams. Doing so enables the maximization of the strength of both professions, thus providing more efficient utilization of health care resources,

as well as enabling ophthalmologists to be available to perform medical services more appropriate to their scope of practice (e.g., eye surgeries), all the while providing timely and much needed access to eye care for older patients.

This program fits well with the hospital's current mission which is to "provide excellence and innovation in the delivery of patient and family-centered care and leading the provision of specialized rehabilitation services," as well as "collaborating with a wide range of partners to address the needs of patients and the community and building a strong, integrated system of health care delivery." Considering the scientific evidence showing links between treating visual disorders and improved life satisfaction, mobility, mental health, and quality of life,[4,11] an optometrist-lead inpatient eye clinic would truly be a way to partner with the local community while delivering excellence in patient care.

The potential for future community optometrists to participate in such a clinic appears promising. Kergoat et al recently reported in a national study of Canadian optometrists that 41% of Canadian optometrists would consider seeing older frail patients outside their office.[12] From this group, 41% would accept doing so half day per month and 8.6% would be willing to offer up to half a day per week.

Clinical Relevance

This study addresses an important gap in the literature and practice environment in eye exams related to the inpatient geriatric population. Vision impairment is consistently associated with decreased functional capacity and quality of life in older persons, including the ability to live independently, with more severe vision impairment associated with greater negative effects.[10] While eye diseases pose significant risk to seniors, optometrists have proven their ability to examine and improve the eye health of seniors. Findings can help strengthen partnerships between the local health care community and hospitals.

Data and outcomes related to implementing an optometrist-lead CEE Clinic for geriatric inpatients are available for the first time. In an era where there are significant fiscal restraints when providing health care services, examining new, creative and fiscally conservative health services to examine the feasibility of such a clinic is opportune. Linking community health professionals with the local hospital is one innovative way to potentially minimize cost while providing optimal health care for our seniors. Results are relevant to all tertiary rehabilitation hospitals in Canada, and can be of considerable interest to other national and international facilities that operate programs for older adults.

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Devenir visionnaire : évaluation d'une clinique d'examen de la vue complet dans un contexte de réadaptation gériatrique

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Résumé

Dans la population adulte âgée, les déficiences visuelles sont très prévalentes, mais en grande partie non diagnostiquées. La recherche a démontré que ces déficiences alourdissent le risque de chutes, de dépression et de mortalité chez les adultes âgés. Il n'y a pas d'études portant sur l'effet de l'implantation d'une clinique d'examen de la vue en contexte hospitalier. Cette étude proposée visait à évaluer la faisabilité de demander à des optométristes communautaires d'offrir une clinique d'examen de la vue complet (EVC) afin de détecter la perte de vision en contexte de réadaptation gériatrique. Les résultats ont révélé que l'on a diagnostiqué chez quatre-vingt-trois pour cent des participants des problèmes oculovisuels détectables dont plus de la moitié n'avaient pas été diagnostiqués auparavant. Le tiers des participants n'avaient pas consulté un spécialiste des yeux depuis deux ans. La clinique d'EVC a été établie, entraînant des dépenses minimes, imposant une faible charge de travail au personnel. Elle a permis aussi de repérer d'importants problèmes oculovisuels chez de nombreux participants.

Introduction

Les changements de la vision sont courants dans la population adulte âgée. Les consultations indiquent que la déficience visuelle chez les adultes âgés double l'incidence des chutes et les taux de mortalité, triple l'incidence de la dépression et quadruple celle des fractures de la hanche.[1–3] En revanche, les recherches ont révélé que l'amélioration de la fonction visuelle découlant du traitement des troubles de la vision se conjugue à une amélioration de la satisfaction à l'égard de la vie, de la mobilité, de la santé mentale, des activités à domicile et dans la collectivité.[4] Selon des estimations, de 20 % à 50 % des aînés présentent une réduction de la vision qui n'est pas détectée.[5] Chez les personnes qui vivent avec une déficience visuelle, plus de 50 % des déficiences sont attribuables à des problèmes faciles à corriger.[6] La plupart de ces problèmes oculovisuels comme les erreurs de réfraction et la cataracte sont traitables, particulièrement s'ils sont repérés tôt, ce qui met en évidence l'importance des programmes de dépistage.[7]

Il n'y a pas d'études portant sur la faisabilité et l'incidence de l'implantation d'un programme de dépistage en contexte hospitalier, et c'est pourquoi il est difficile de tirer des conclusions solides au sujet de la question de savoir si les hôpitaux devraient lancer des programmes de dépistage chez leurs patients âgés en espérant réduire davantage les déficits oculovisuels chez ceux ci.

Buts et objectifs de l'étude

But : Évaluer la faisabilité de demander à des optométristes communautaires d'offrir une clinique d'examen de la vue complet (EVC) afin de détecter la perte de vision en contexte de réadaptation gériatrique.

Objectifs : 1) Déterminer les résultats liés au lancement du programme : nombre de patients évalués, prévalence des patients qui ont des problèmes et des déficiences de la vision, fréquence de divers diagnostics visuels, nombre de patients aiguillés vers une évaluation plus poussée de la vision et nombre de patients qui ont pris des rendez-vous de suivi.

2) Analyser les expériences personnelles à l'égard du projet pilote : facteurs habilitants (c. à d. qui appuient la réussite du

projet pilote) et difficultés selon le personnel, les patients et les optométristes communautaires qui ont participé à la clinique d'EVC.

Méthodes

Conception : Il s'agissait d'une étude de faisabilité descriptive à méthodes mixtes. Les études de faisabilité servent à déterminer si une intervention est appropriée pour procéder à des tests plus poussés. Le centre de l'étude regroupait deux unités de réadaptation en gériatrie de 36 lits chacune dans un hôpital de réadaptation de l'Ouest canadien. En général, les patients de ces unités proviennent d'hôpitaux de soins actifs. L'échantillon comportait 55 participants. On a exclu de l'étude les patients qui ont déclaré avoir subi un examen de la vue depuis moins d'un an afin de réduire la prestation de soins de santé redondants. Les cliniques d'EVC se sont déroulées au cours de la période d'avril à juillet 2014. Le Comité de l'éthique de la recherche de l'université locale a approuvé l'étude.

Recrutement : On a demandé à tous les patients admis dans les unités au cours de la période de tenue de la clinique s'ils souhaiteraient recevoir d'autres renseignements au sujet de l'étude. S'ils étaient d'accord, un adjoint de recherche les a rencontrés pour discuter de l'étude et déterminer leur admissibilité. On a communiqué avec 138 patients dont 33 ont déclaré avoir déjà consulté un spécialiste des yeux depuis moins d'un an, cinq avaient d'importantes déficiences cognitives limitant leur capacité de suivre des instructions, 55 ont accepté de participer et 45 ont refusé. Les motifs du refus comprenaient le congé reçu avant le rendez-vous clinique (n=18), l'admission dans une unité d'isolement (n=7) ou le manque d'intérêt (n=20).

Intervention

Objectif 1. Un optométriste communautaire a procédé à un examen complet de la vue au moyen d'une trousse d'évaluation communautaire portable dans une salle d'examen de l'hôpital. L'examen complet de la vue comportait une anamnèse, un test d'acuité visuelle effectué au moyen du tableau de Snellen, une évaluation neurologique au moyen de tests non informatisés habituels (réaction pupillaire, périmétrie par confrontation, mouvement des muscles des yeux, etc.), une évaluation de la prescription et un test de pression oculaire. L'examen de la vue a été effectué dans une salle bien éclairée. Pour procéder au test d'acuité visuelle, on a placé le tableau de Snellen à 10 mètres du patient. L'optométriste a recouvert l'œil gauche et évalué l'œil droit de façon progressive pour ensuite répéter l'intervention sur l'œil gauche. Le test d'acuité a porté avant tout sur l'acuité visuelle habituelle (c. à d. la vision que les participants ont au moment de l'examen avec ou sans lunettes), car le projet pilote essayait d'analyser le niveau fonctionnel courant de la vision. L'optométriste a testé la pression intraoculaire (PIO) au moyen du Tonopen, petit tonomètre par applanation portable, compact et manuel. Il est démontré que le Tonopen constitue un moyen valide et fiable de vérifier la PIO[7]. Le test de pression intraoculaire peut aider à déterminer s'il y a glaucome.

Quelque huit patients ont été reçus par clinique de trois heures tenue un jour aux deux semaines par un de deux optométristes communautaires. Les patients chez lesquels on a détecté une maladie oculaire ont été aiguillés vers d'autres services oculovisuels. Si l'optométriste a recommandé de consulter un ophtalmologiste, le médecin du patient a alors été informé des constatations et l'optométriste a fait un appel pour organiser une évaluation de référence par un ophtalmologiste à l'hôpital de soins actifs voisin.

Trois ou quatre mois après la clinique d'EVC, un adjoint de recherche a téléphoné à tous les participants à qui on avait recommandé de se soumettre à une évaluation de la vue plus poussée pour déterminer s'ils avaient pris un rendez-vous de suivi.

Objectif 2. On a réuni à la fois oralement et par écrit les expériences personnelles vécues à l'égard de la clinique pilote. On a obtenu les commentaires écrits des deux optométristes afin d'analyser les expériences qu'ils ont tirées de la participation à la clinique d'EVC. On a posé des questions de suivi comme celle ci : « Pouvez-vous me parler de vos expériences à l'égard de l'implantation de la clinique d'examen complet de la vue? » Au cours de la clinique et des appels téléphoniques de suivi, on a aussi enregistré des commentaires des membres du personnel et des patients au sujet des expériences vécues au cours de la clinique.

Analyse

Objectif de recherche 1 : On a entré des données sur les patients dans le programme informatique en utilisant l'outil statistique pour les sciences sociales (SPSS). On a analysé des statistiques descriptives comme les moyennes, les écarts types et le pourcentage portant sur les caractéristiques démographiques des patients et les données relatives aux examens de la vue.

Objectif de recherche 2 : L'analyse du contenu a servi à analyser les données. On a précisé les thèmes à mesure que des tendances se dégageaient.

Tableau 1. Caractéristiques de l'échantillon à l'étude

Âge (moyen, ET)	80,5 (8,44)
Sexe (femmes, *n* %)	31 (56,4)
Durée du séjour en jours (moyenne, ET)	42 (20,3)

Tableau 2. Période écoulée depuis le dernier examen de la vue

≤ 12 mois (*n*, %)	18 (32,7)
13 à 24 mois (*n*, %)	35 (63,6)
25 mois à 5 ans (*n*, %)	7 (12,7)
>5 ans mais <10 ans (*n*, %)	13 (23,6)
10 ans ou plus (*n*, %)	6 (10,9)

Tableau 3. Troubles oculovisuels détectés

Cataractes (*n*, %) Auparavant non détectées	20 (40) 12
Dégénérescence maculaire (*n*, %) Auparavant non détectée	9 (16) 4
Glaucome (*n*, %) Auparavant non détecté	5 (9) 3
Blépharite/kératoconjonctive sèche (*n*, %) Auparavant non détectées	8 (15) inconnu
Autres troubles oculovisuels (p. ex., changements de l'acuité) (*n*, %) Auparavant non détectés	7 (13) inconnu
Hémorragie rétinienne (*n*,%) Auparavant non détectées	1 (2) 0

Résultats

Caractéristiques des patients

Le groupe de patients visé comportait des adultes âgés admis en réadaptation gériatrique. Le tableau 1 présente les caractéristiques démographiques des 55 participants.

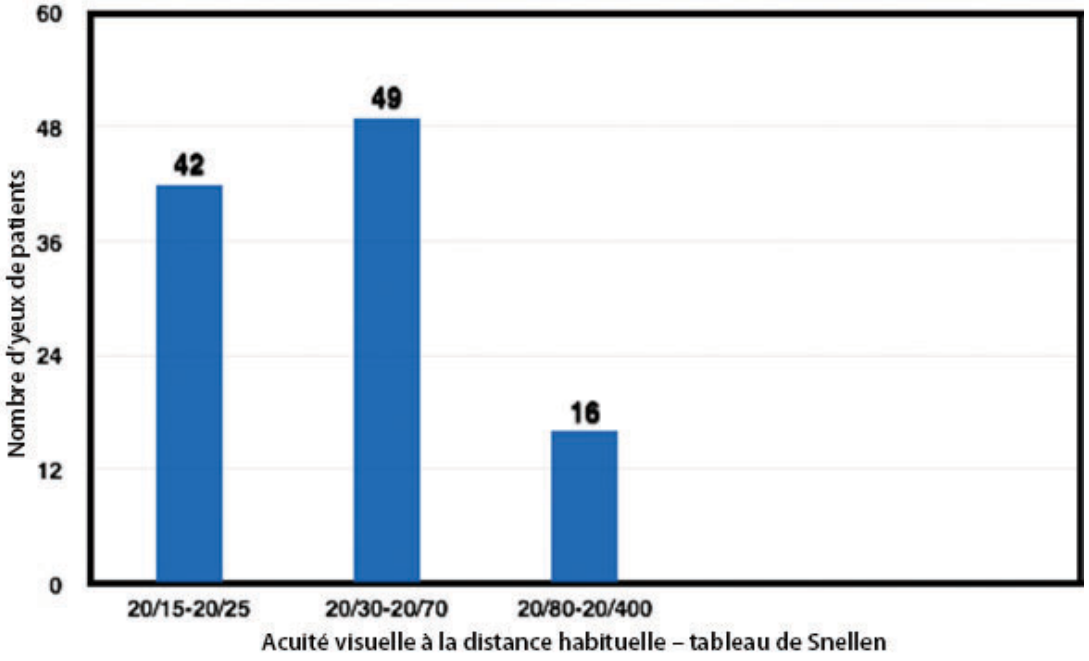
Caractéristiques du dépistage

Il s'était écoulé en moyenne, depuis le dernier examen de la vue, 3,4 ans (ET = 3,8 ans), période étalée sur une plage de six mois à 20 ans. Même si les patients ont participé au projet pilote seulement s'ils ont déclaré au recruteur qu'ils n'avaient pas consulté un spécialiste des yeux depuis moins d'un an, plusieurs ont indiqué par la suite à l'OD qu'ils l'avaient fait. Trente-cinq personnes (63,6 %) ont déclaré avoir consulté un spécialiste des yeux au cours des deux années précédentes. Le tableau 2 illustre plus en détail la période écoulée depuis le dernier examen de la vue.

Test de vision et admissibilité à l'aiguillage

Au début de l'examen de la vue, on a demandé aux patients s'ils avaient des problèmes oculovisuels. Vingt et un participants (38 %) ont répondu qu'ils avaient en fait un problème (p. ex., vision floue, « ne vois pas trop bien », on leur avait déjà dit que des cataractes commençaient à faire leur apparition). À la fin de l'examen, on a jugé que 46 participants (83 %) avaient des problèmes de vision détectables. On a constaté le plus souvent la présence de cataractes (20 participants). Sur

Figure 1. Résultats du test d'acuité visuelle au moyen du tableau du Snellen



les 35 maladies oculovisuelles détectées par les optométristes communautaires, 19 (54,3 %) n'étaient pas diagnostiquées. Le tableau 3 présente divers troubles oculovisuels détectés.

L'examen de l'acuité visuelle habituelle des yeux gauche et droit a démontré que 59 % des participants avaient un déficit visuel variant de bénin à grave de 20/30 ou plus. Quinze pour cent des participants avaient un déficit visuel modéré ou grave de 20/80 ou plus. La figure 1 présente les résultats de l'examen clinique effectué au moyen du tableau de Snellen.

À l'aide du Tonopen, on a déterminé que la PIO s'établissait à 15±4,01 mm Hg. Trois participants seulement avaient une PIO de plus de 21 mm Hg.

Aiguillages

On a recommandé à 27 participants (49 %) de se soumettre à un suivi. Nous avons déterminé la volonté de ces participants de prendre rendez-vous pour recevoir des soins oculovisuels de suivi après l'EVC à l'hôpital. Lorsque les optométristes ont discuté avec certains participants de la nécessité d'un suivi plus poussé après leur examen, tous se sont dits intéressés. De trois à quatre mois après qu'ils ont reçu leur congé, l'adjoint de recherche a appelé chacun des 27 participants à qui l'on a recommandé de se soumettre à un autre examen. Douze (44 %) avaient déjà pris rendez-vous avant le premier appel téléphonique de l'adjoint de recherche. Quatorze des 27 adultes âgés (52 %) n'avaient pas encore pris rendez-vous lorsque l'adjoint de recherche a communiqué avec eux. On n'a pu joindre un des patients par téléphone. L'appel téléphonique de suivi à trois mois a rappelé à beaucoup de participants de prendre rendez-vous.

On a recommandé à 16 des 27 participants à qui l'on a conseillé de se soumettre à un suivi plus poussé de consulter un optométriste et à 11, un ophtalmologiste. Le tableau 4 présente le suivi que les patients ont donné à ces recommandations. Trois à quatre mois après qu'ils ont reçu leur congé, les participants étaient moyennement disposés (66 %) à chercher à se soumettre à un examen de suivi.

Tableau 4. Patients qui ont pris un rendez-vous de suivi

Recommandation de consulter un optométriste *n*=16	
Pris rendez-vous	9
Pas intéressé à prendre rendez-vous	4
« Je vais appeler, mais je ne l'ai pas encore fait »	3
Recommandation de consulter un ophtalmologiste *n*=11	
Pris rendez-vous	9
Pas intéressé/n'a pas répondu au téléphone	2

On a communiqué avec les patients à qui l'on avait recommandé de se soumettre à un deuxième examen mais qui ne l'avaient pas fait pour leur demander pourquoi ils n'ont pas donné suite à la recommandation. Les obstacles qui les en ont empêchés comprenaient les suivants : participants qui ont oublié de prendre rendez-vous, difficulté à trouver un transport ou un membre de la famille pour les amener à un rendez-vous et trop lourds problèmes de santé ou rendez-vous de médecin auxquels ils devaient se rendre avant de prendre rendez-vous pour un examen de la vue de suivi. Plusieurs ont déclaré « ne pas être intéressés » à prendre rendez-vous.

Expériences

Réactions du personnel au programme

Les membres du personnel ont bien accueilli la clinique pilote d'EVC. Les membres du personnel infirmier, les travailleurs sociaux et les commis d'unité ont déclaré que la clinique n'avait pas alourdi leur charge de travail. Ils ont considéré la clinique d'EVC sur place comme une façon commode pour les patients de subir un examen de la vue, car ils n'avaient pas à se rendre ailleurs. Un thérapeute a déclaré que la clinique d'EVC constituait « une autre pièce du casse-tête » servant à évaluer la mobilité fonctionnelle des patients liée l'acuité visuelle. Un autre a signalé que l'accès à une évaluation optométrique « complète l'évaluation détaillée et pourrait peut-être permettre d'examiner la cause des étourdissements et de l'instabilité du patient ».

Expériences des patients

Des patients se sont déclarés heureux des services et de la commodité de la clinique sur place. Ils ont mentionné plusieurs difficultés en ce qui a trait au manque de soins oculovisuels réguliers pour les patients dans la communauté. Le moyen de transport à trouver pour se rendre à l'examen de la vue et savoir avec qui communiquer pour subir un examen de la vue ont constitué les plus gros défis à relever.

Plusieurs patients se sont dits dépassés par leurs autres problèmes de santé et les nombreux rendez-vous de médecin. C'est pourquoi ils ont plus de difficulté à prendre rendez-vous pour un examen de la vue en disant qu'ils étaient trop occupés par tellement de rendez-vous.

Un répondant atteint de glaucome a déclaré que :

> ***Dès que j'aurai réglé ce problème (de marche), je pourrai alors me concentrer sur mes yeux. Pour le moment, je dois toutefois me concentrer sur mes jambes. Cette étude m'a rappelé que je devais recommencer à***

> ***me soumettre à un examen de la vue aux six mois. J'ai laissé tomber (les examens de la vue) parce que j'avais des problèmes de santé. »***

Expériences des optométristes

Les deux optométristes communautaires ont bien accueilli la clinique. L'un d'entre eux a déclaré que :

> ***Je crois qu'une clinique de soins oculovisuels primaires à l'hôpital, c'est une excellente idée. J'aimerais que l'optométrie et les soins oculovisuels soient intégrés aux traitements que reçoivent les patients. La largeur de l'éventail des capacités visuelles m'a honnêtement étonné… Beaucoup des patients avaient des problèmes de vision assez importants, mais nous avons travaillé seulement dans un petit sous-secteur de l'hôpital. Certains de ces problèmes dataient de longtemps, mais d'autres étaient plus actifs et devaient être traités. Certains étaient moins urgents, comme les cataractes, mais celles ci peuvent quand même avoir une incidence sur la mobilité de la personne. Beaucoup d'autres problèmes oculovisuels, y compris la réduction du champ visuel, pourraient avoir une incidence sur la réadaptation d'un patient.***

Les optométristes ont constaté plusieurs défis. Leurs services étaient limités parce que la clinique de dépistage était temporaire. Les optométristes n'ont pu mesurer avec précision la réfraction avec leur trousse d'examen de la vue de voyage. Ils n'ont pas pu non plus tester le champ de vision des patients pour qui l'examen serait bénéfique (p. ex., patients victimes d'un accident vasculaire cérébral). Le volume plus important que prévu de paperasse exigée par l'hôpital comparativement aux exigences du travail dans la collectivité a constitué un autre défi. La grandeur d'une des deux salles d'évaluation a aussi posé un problème. Comme elle mesurait 10 pieds sur 9, il était difficile d'y amener des patients en fauteuil roulant.

Discussion

Les constatations tirées de cette étude pilote indiquent qu'il est possible d'implanter une clinique d'examen de la vue complet chez les adultes âgés en contexte hospitalier. La clinique d'EVC a été établie, entraînant des dépenses minimes, imposant une faible charge de travail au personnel. Elle a permis aussi de repérer d'importants problèmes oculovisuels chez de nombreux participants. L'hôpital et les patients de tous les âges pourraient bénéficier d'une clinique d'EVC.

Plus du tiers des participants n'avaient pas subi d'examen de la vue depuis deux ans, ce qui préoccupe. L'Association canadienne des optométristes (ACO) recommande que les adultes de 65 ans ou plus subissent un examen oculovisuel par année.[8] La Société canadienne d'ophtalmologie recommande un examen complet de la vue aux deux ans chez les 65 ans et plus qui ne présentent aucun facteur de risque.[9] Le fait que 10 % des participants n'aient pas subi d'examen oculovisuel depuis plus de dix ans préoccupe encore davantage. Il y avait des incohérences entre les participants qui ont déclaré avoir des problèmes oculovisuels au début de l'examen (38 %) et le nombre de ceux chez lesquels on a diagnostiqué un problème oculovisuel détectable (83 %). Les publications appuient ce manque de cohérence. Le Groupe de travail sur les services de prévention des États-Unis[10] a signalé que les autodéclarations des patients ne sont pas aussi exactes qu'un examen complet de la vue pour déterminer s'il y a des problèmes oculovisuels. Les personnes ne signalent pas tous leurs problèmes oculovisuels en partie parce que ceux ci évoluent lentement.

L'obligation pour beaucoup de patients de prendre par la suite un deuxième rendez-vous à l'extérieur constitue le plus gros défi à relever pour mettre en œuvre un programme de dépistage temporaire. Dans le cadre de cette étude, le taux d'attrition était très élevé en ce qui concerne ces rendez-vous de suivi. Seulement 44 % des participants ont pris un deuxième rendez-vous et dans beaucoup de ces cas, le rendez-vous a été pris par l'optométriste qui l'a fait pour le compte de l'ophtalmologiste. Même si un membre du personnel a effectué des appels téléphoniques de rappel, le taux de rendez-vous a augmenté modestement pour atteindre 66 % des participants. Il semble qu'il faut y affecter beaucoup de ressources.

Afin d'atténuer cet obstacle qui empêche d'assurer une santé oculovisuelle optimale aux aînés, une clinique interne permanente de soins oculovisuels pourrait permettre d'utiliser de l'équipement spécialisé pour vérifier la réfraction et l'ordonnance portant sur les lunettes. Les coûts fixes d'une telle clinique seraient liés en grande partie aux coûts de lancement, ainsi qu'à ceux de l'équipement et aux frais généraux. Les coûts fixes incluraient un ordinateur pour accroître l'efficience et la tenue des dossiers, des supports pour les appareils et des lampes à fente permettant d'examiner des personnes qui ont des problèmes de mobilité et celles qui n'en n'ont pas, une échelle d'acuité visuelle, un cache-œil, du matériel manuel, un autoréfracteur, des gouttes oculaires diagnostiques, du

papier-mouchoir, des tableaux d'examen, des carnets d'ordonnance, un évier pour se laver les mains et un agent antiseptique. On calcule que la mise sur pied d'une telle clinique interne coûterait de 50 000 $ à 75 000 $.

La clinique pourrait aussi bénéficier des services d'un administrateur à temps plein ou d'un adjoint en optométrie à temps partiel ou à temps plein chargé d'assurer la continuité des soins si l'on a recours aux services de multiples médecins et pour aider les jours de clinique. Les optométristes factureraient leurs services d'examen de la vue à la province, ce qui ne ferait pas grimper les coûts des salaires pour l'hôpital.

Une telle clinique pourrait permettre d'effectuer d'autres évaluations approfondies des patients, ce qui pourrait aider le patient et son équipe de soins de santé à fournir des renseignements supplémentaires au sujet de l'incidence des capacités oculovisuelles des patients sur les évaluations détaillées et les interventions. Une telle clinique pourrait aussi réduire au minimum la redondance au niveau des évaluations de suivi à l'extérieur de la clinique pour les personnes qui ont des problèmes d'acuité visuelle, ainsi que les changements d'ordonnance. Elle permettrait aussi la participation des aînés qui ont de la difficulté à trouver un moyen de transport pour se rendre à des cliniques communautaires.

Cette étude pilote a joué un rôle de pionnier, car c'était la première au cours de laquelle les optométristes ont pratiqué des examens de la vue complets en milieu hospitalier en Alberta. Les ophtalmologistes se chargent habituellement de ces examens en milieu hospitalier. Il en coûte plus cher pour le système de santé lorsque ce sont des ophtalmologistes plutôt que des optométristes qui effectuent ce premier examen de la vue.[11] Le moment est venu d'explorer la possibilité de faire effectuer le premier examen de la vue complet à l'interne par des optométristes, ce qui permettrait de maximiser la force des deux professions et d'utiliser de façon plus efficiente les ressources du secteur de la santé. Cela permettrait aussi aux ophtalmologistes d'être disponibles pour offrir des services médicaux plus appropriés à leur champ d'exercice (p. ex., chirurgies oculaires) tout en fournissant aux patients âgés un accès opportun et des plus nécessaires aux soins oculovisuels.

Ce programme s'inscrit bien dans la mission courante de l'hôpital qui consiste à « exceller et innover dans la prestation de soins axés sur les patients et la famille et à diriger la prestation de services de réadaptation spécialisés », ainsi qu'à « collaborer avec un vaste éventail de partenaires pour répondre aux besoins des patients et de la communauté et bâtir un solide système intégré de prestation de soins de santé ». Compte tenu des données scientifiques qui révèlent l'existence de liens entre le traitement des troubles oculovisuels et l'amélioration de la satisfaction face à la vie, de la mobilité, de la santé mentale et de la qualité de vie,[4,11] une clinique interne de soins oculovisuels dirigée par un optométriste constituerait vraiment un moyen d'œuvrer en partenariat avec la collectivité locale tout en fournissant d'excellents soins au patient.

La possibilité de voir de futurs optométristes communautaires participer à une telle clinique semble porteuse de promesses. Kergoat, Leat, Faucher, Roy et Kergoat ont signalé récemment, dans une étude nationale sur les optométristes canadiens, que 41 % des optométristes canadiens envisageraient de voir des patients frêles âgés à l'extérieur de leur cabinet.[12] De ce groupe, 41 % accepteraient de le faire une demi-journée par mois et 8,6 % seraient disposés à offrir leurs services jusqu'à une demi-journée par semaine.

Pertinence clinique

Cette étude comble une lacune importante des publications et du contexte d'exercice en ce qui concerne les examens de la vue dans une population gériatrique de bénéficiaires internes. On établit constamment un lien entre les déficiences oculovisuelles et une baisse de la capacité fonctionnelle et de la qualité de vie chez les personnes âgées, y compris de la capacité de vivre en autonomie, car elles sont plus nombreuses à avoir des problèmes visuels graves qui ont des effets négatifs plus lourds.[10] Les maladies oculovisuelles représentent un risque pour les aînés, mais les optométristes ont démontré leur capacité à examiner et améliorer la santé oculovisuelle des aînés. Les constatations peuvent aider à renforcer les partenariats entre la collectivité locale des soins de santé et les hôpitaux.

On dispose pour la première fois de données et de résultats liés à la mise sur pied d'une clinique d'EVC dirigée par un optométriste à l'intention des bénéficiaires internes en gériatrie. À une époque où des contraintes budgétaires importantes entravent la prestation de services de santé, il est opportun d'examiner les services de santé nouveaux, marqués par la créativité et financièrement responsables afin d'analyser la possibilité d'implanter une telle clinique. L'établissement de liens entre les professionnels de la santé de la collectivité et l'hôpital local constitue une façon innovatrice de réduire peut-être les coûts au minimum tout en fournissant des soins de santé optimaux aux personnes âgées. Les résultats sont pertinents pour tous les hôpitaux de réadaptation tertiaire au Canada et peuvent intéresser énormément d'autres établissements au Canada et à l'étranger qui offrent des programmes aux adultes âgés.

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Impending Central Retinal Vein Occlusion

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Abstract

Central retinal vein occlusion (CRVO) may present with varied clinical manifestations, ranging from mild blurred vision and scattered retinal hemorrhages to severe vision loss, optic nerve swelling, pronounced retinal hemorrhages, collateral retinal vessel formation and neovascularization. Impending CRVO, also known as partial CRVO, is a relatively poorly-defined sub-classification of the CRVO condition. Those affected are either asymptomatic or may complain of mild, often transient episodes of blurring of vision and present with venous dilation and tortuosity but only a few widely scattered flame-shaped retinal hemorrhages. As an impending CRVO may be the prodromal phase of an acute CRVO, this diagnosis requires careful monitoring of the patient for progression. The following case outlines the differential diagnosis, sequelae and inter-professional management of an impending central retinal venous occlusion.

Résumé

L'occlusion de la veine rétinienne centrale (OVRC) peut produire divers symptômes cliniques variant de la vision floue légère et des hémorragies rétiniennes diffuses jusqu'à une perte de vision sévère, l'œdème du nerf optique, des hémorragies rétiniennes prononcées, l'apparition de vaisseaux rétiniens collatéraux et une néovascularisation. L'OVRC imminente, aussi appelée OVRC partielle ou bénigne, est une sous-catégorie relativement mal définie de l'OVRC. Les personnes atteintes sont asymptomatiques ou peuvent se plaindre d'épisodes bénins, souvent transitoires, de vision floue et présenter une dilatation et une tortuosité des vaisseaux sanguins, mais seulement quelques hémorragies rétiniennes très dispersées et en flammèches. Comme une OVRC imminente peut constituer la phase prodromique d'une OVRC aiguë, le diagnostic oblige à suivre attentivement l'évolution du problème chez le patient. Le cas qui suit décrit le diagnostic différentiel, les séquelles et la prise en charge interprofessionnelle d'une occlusion imminente de la veine rétinienne centrale.

Introduction

Retinal vein occlusion (RVO) is recognized as the second most common vascular disorder after diabetic retinopathy.[1,2] There are three distinct types of RVO: branch retinal vein occlusion (BRVO), central retinal vein occlusion (CRVO), and hemiretinal vein occlusion, which is an anatomical variant of CRVO. Central retinal vein occlusion can pose a major threat to vision through the potential sequelae of macular edema, retinal ischemia, retinal neovascularization, secondary vitreous hemorrhage, fibrous tissue formation, and secondary neovascular glaucoma. Although CRVO has been recognized as a disease entity for over 150 years, the classification, pathogenesis and management of the condition have remained controversial.[3]

The classic presentation of an acute CRVO includes pronounced dilation and tortuosity of retinal veins, retinal hemorrhages in all quadrants accompanied by extensive retinal edema, cotton-wool spots and optic disc swelling.[4] As a CRVO affects the main venous outflow trunk, the entire venous system of the retina can become involved. One must also consider that in CRVO a patient may have complete obstruction of the central retinal vein but have well-developed collateral venous channels, such as in the case presented, and manifest only minimal funduscopic changes of venous occlusion. The diagnosis becomes less obvious if the presentation is of either an impending CRVO, less severe CRVO, or if the patient is late in the course of the disease where the dramatic acute findings have resolved over time. In the cases of either an impending

CRVO or mild CRVO the presenting signs may consist of only tortuous, dilated vasculature, disc hyperemia and swelling and a few scattered hemorrhages. These similarities make distinguishing a mild CRVO from an impending CRVO difficult; monitoring for change over time is required as these conditions may resolve without sequelae, as in the case presented, or an impending CRVO can progress to an acute CRVO requiring treatment.

Case Report

A 49-year-old male presented to a primary care optometry clinic with episodes of blurred vision in the left eye, each lasting 12 hours. The most recent episode was the night prior and was improving at the time of assessment. The patient stated he was anemic with a normal erythrocyte sedimentation rate, and that blood glucose and HbA1C as recently assessed by his physician were at the high end of normal. He was taking no medications. Blood pressure measured in office was 130/98 mmHg.

Best-corrected acuities were 20/15 in each eye; however, a 4 x 6 area of cloudy vision was noted superior-temporal to fixation on the Amsler grid for the left eye. Colour vision testing was normal and there was no relative afferent pupillary defect in either eye. Slit lamp examination of the anterior segment was unremarkable in each eye. Goldmann intraocular pressures were equal in each eye at 17 mmHg at 1:00pm. A Humphrey visual field (30-2 SITA Standard) was unremarkable in each eye. A dilated fundus exam revealed bilateral arteriolar attenuation. In the left eye, moderate swelling of the superior aspect of the optic nerve and venous dilation was noted. A tortuous optociliary shunt vessel was also

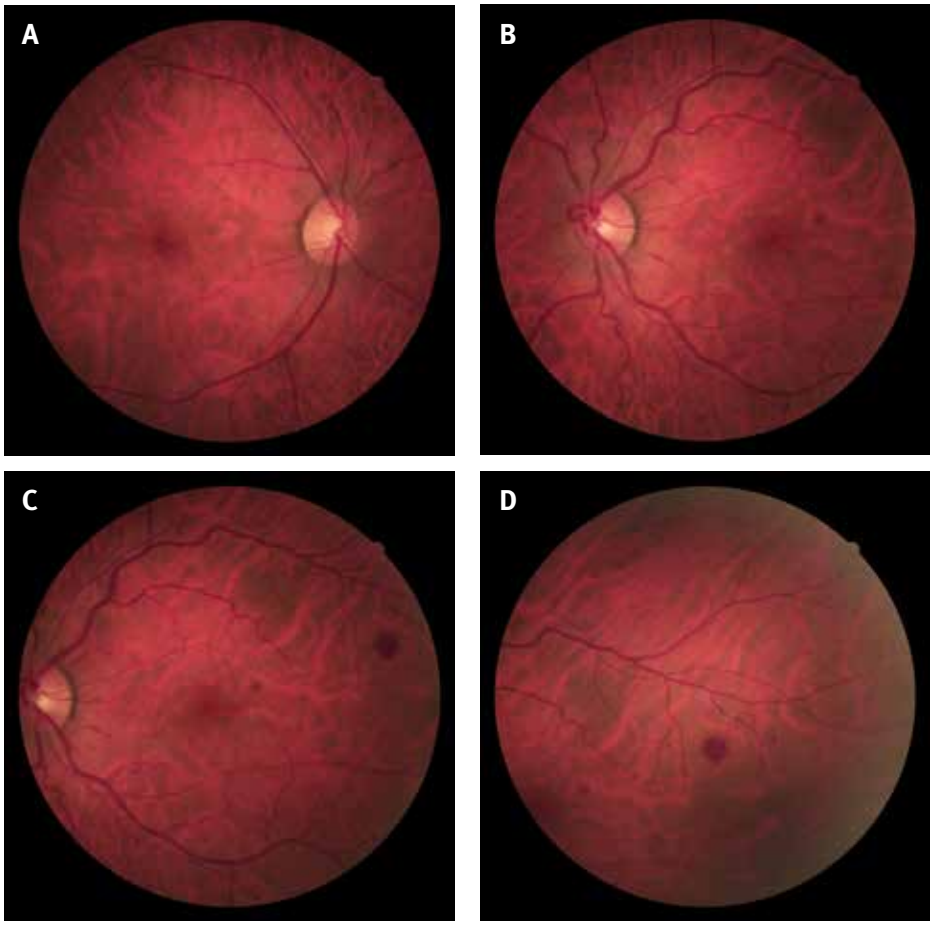

Figure 1. Fundus images at initial presentation of the right (A) and left (B) eyes. Note the decreased arteriolar caliber in the right eye, likely indicative of systemic hypertension. In the left eye there is disc swelling secondary to the impending occlusion, venous dilation and an optociliary shunt vessel. Note the multiple scattered retinal hemorrhages, including a Roth spot, present in the left eye (C,D).

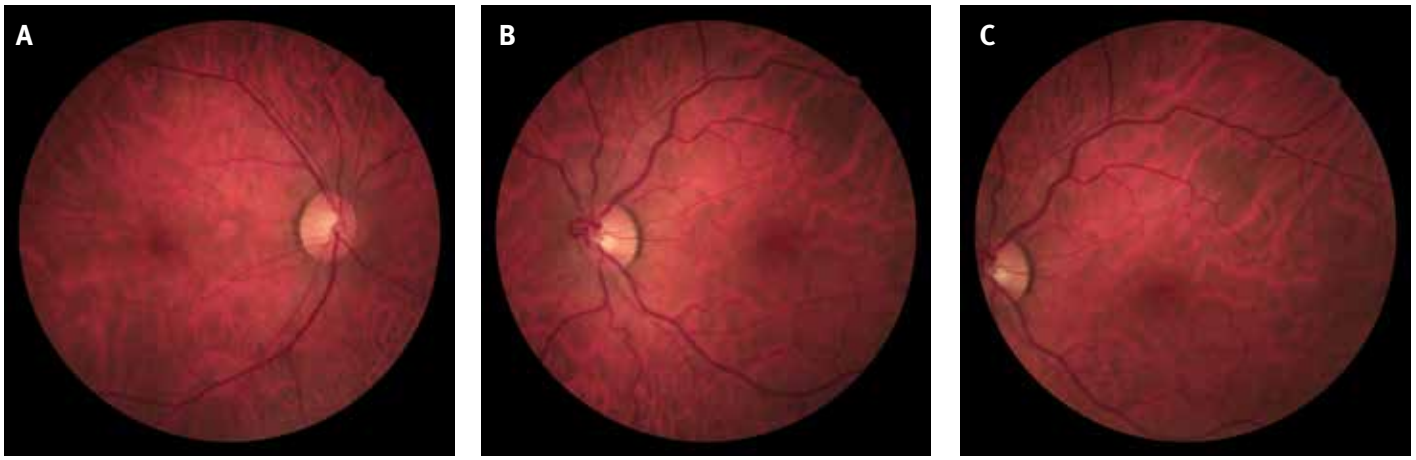

Figure 2. Fundus images 3 weeks after initial presentation in the right (A) and left (B) eyes. Note the significant improvement in the retinal hemorrhages in the left eye and resolution of the Roth spot (C).

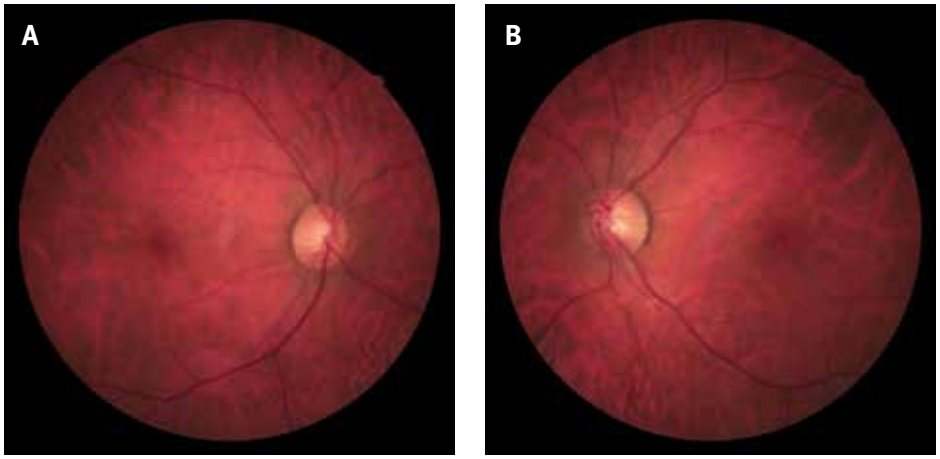

Figure 3. Images of the right (A) and left (B) fundus 8 months after initial presentation. The venous dilation has resolved, and the caliber of the optociliary shunt vessel is reduced.

present at the optic nerve of the left eye. Several dot-blot and retinal nerve fibre layer (RNFL) hemorrhages were noted in the macular area of the left eye, and one larger pale-centered RNFL hemorrhage (Roth spot) was located in the superior temporal arcades (Figure 1). In retrospect, a macular OCT to assess for the presence of macular edema would have been valuable but was not completed.

After the patient's initial presentation, a referral was made to his primary care physician for a full physical examination, including CBC with differentials, blood glucose testing and an assessment for blood hypercoagulation. Given the presence of an optociliary shunt vessel, a CT scan of the head and orbits was performed to rule out any compressive lesion, including optic nerve sheath meningioma. The results of the above testing were unremarkable.

Over the following two months, the patient experienced two additional episodes of blurred vision in the left eye. One episode occurred one week after initial presentation and lasted 24 hours, at which time the visual acuity was 20/20 in the right eye and 20/25 in the left eye. Funduscopic examination was unchanged from the initial presentation one week prior. Three weeks after initial presentation, there was significant resorption of the retinal hemorrhages in the left eye (Figure 2).

The second episode of blurred vision occurred six weeks after initial presentation and lasted 3–4 days. Upon examination, the vision was 20/20 in each eye. Bilateral arteriolar attenuation was noted. In the left eye, there were scattered dot-blot hemorrhages throughout the retina, the tortuous optocilary shunt vessel remained engorged and venous dilation was present. Gonioscopy indicated that there was no neovascularization. During this episode, the patient noted a few neurological symptoms, including numbness in his right leg and foot. Inter-professional collaboration between the optometrist, primary care physician, ophthalmologist and

neurologist allowed for co-ordinated medical care. A MRI study was not suggestive of multiple sclerosis and the neurological symptoms were attributed to a peripheral nerve injury and not demyelinating disease. A fluorescein angiography was requested but not performed by the ophthalmologist, who instead decided to monitor for progression. A carotid Doppler study was undertaken to rule out carotid artery stenosis as the origin of the asymmetric retinopathy. A 24-hr ambulatory blood pressure to assess for excessive blood pressure variability was also completed. The results of these tests were unremarkable. A further fundus examination at 5 months was more typical of post-venous occlusion, given the venous collaterals noted at the left optic nerve. An evaluation eight months post-initial presentation demonstrated reduction in calibre of the left optociliary vessel and resolution of venous dilation (Figure 3). The patient remained symptom-free at his most recent exam, 16 months after initial presentation.

Discussion

The pathogenesis of CRVO is not fully understood, but it is currently thought that the condition is the result of a blockage of venous outflow, most likely at or posterior to the lamina cribrosa. It has been hypothesized that the occlusion forms as the result of the central retinal artery compressing the central retinal vein in the area where there is a common fibrous sleeve. This leads to a predisposition for endothelial damage and turbulent blood flow, as evidenced by fluorescein angiography.[5] In advanced cases of CRVO, histopathologic studies have demonstrated a thrombus formation within the vessel whereby aggregated platelets mesh with cross-linked fibrin protein. It is unknown why there is an affinity for thrombus formation in the central retinal vein at the location of the lamina cribrosa in CRVO, although turbulent blood flow likely plays an important role.[5] The variability in thrombus formation may explain the variety and severity of presentations of CRVO.[4] Initial evaluation of a CRVO should include clinical examination and monitoring combined with fluorescein angiography to distinguish between a non-ischemic and the more visually threatening ischemic CRVO. These two forms of CRVO and their respective treatment and prognosis are beyond the scope of this review, and are discussed elsewhere.[5–7]

Impending CRVO, also known as partial CRVO, is a relatively poorly-defined sub-classification of the condition which includes patients of a younger age than those typically presenting with CRVO, who are either asymptomatic or who may complain of mild, often transient episodes of blurring of vision.[8] Most cases of impending CRVO have a good visual prognosis but some advance to complete CRVO, demonstrating that this condition has the potential for bidirectional progress.[9] The fundus in impending CRVO usually demonstrates mild venous dilation and tortuosity and a few widely scattered flame-shaped retinal hemorrhages, as in the case presented. Some consider impending CRVO as a risk factor for the development of complete CRVO; however, there has been nothing definitive published regarding the natural history of impending CRVO.[8,9] Furthermore, the patient presented in this report had developed an optociliary shunt which may have spared him from the more classic signs of CRVO.

As mentioned, impending CRVO may resolve or progress to complete obstruction; therefore treatment is aimed at preventing progression to complete occlusion by correcting any predisposing systemic conditions (most commonly including hypertension, diabetes, and/or hyperviscosity), avoiding dehydration, and lowering intraocular pressure (through topical and/or systemic treatment) to improve ocular perfusion. Some advocate antiplatelet agents, and in some circumstances (for example, in a monocular patient) it may be appropriate to consider other options such as anticoagulants, fibrinolytics or hemodilution.[7,10] Others have suggested that the condition is self-limiting, making invasive investigation (including fluorescein angiography) and treatments (such as those listed above) with possible systemic complications unnecessary.[11] Instead, the use of a multi-imaging approach including SD-OCT and fundus auto-fluorescence, can be used to detect the fern-like perivenular whitening changes that are characteristic in impending CRVO, and monitor for pro- or re-gression of this sign over time.[12]

Collateral vessel formation is a well-documented sequelae of CRVO. It has been suggested that 70% of optociliary shunt vessels are attributed to CRVOs.[13] The shunt vessels typically develop 3-14 months after the occlusion. It has been reported that the presence of these anastomotic vessels following CRVO is associated with a decreased incidence of anterior segment neovascularization.[14] Others have demonstrated that the presence of an optociliary vessel in non-ischemic CRVO is associated with shorter duration of macular edema.[15]

Optociliary vessels are collateral vessels of a retino-choroidal origin that can be either congenital or acquired. Congenital optociliary shunt vessels direct blood from the choroid to the central retinal vein. In comparison, acquired optociliary vessels direct flow from central retinal vein to the choroid rerouting blood from an obstructed to an unobstructed vein. When the pressure in the central retinal vein becomes greater than that of the choroidal circulation, blood flow is

Table 1. Differential Characteristics of Retinal Collateral, Shunt and Neovascularization19

Vessel Type:	Collateral	Shunt	Neovascularization
Origin	Acquired vessels of capillary origin, connecting vein-to-vein or artery-to-artery in area adjacent to capillary non-perfusion or vessel blockage	Congenital or acquired artery-to-vein communication when there is no destruction of the capillary bed	New, thin-walled, fragile vessels that may be accompanied by fibrotic scaffolding
Appearance	Tortuous intraretinal vascular channels	Large vascular channel	Lacy leashes or tufts upon retinal surfaces
Fluorescein Angiography	Tortuous channel which rarely leaks	Large, rapidly filling channel that rarely leaks, no capillary bed in area of shunt	Abnormal, tortuous appearance which leak

diverted and the optociliary vessel becomes visible. Other names for optociliary shunt vessels include optociliary veins, optociliary collaterals and perhaps most appropriate but not often used, retinochoroidal venous collaterals. In truth, the term optociliary shunt is a misnomer, as these vessels are retinochoroidal rather than optociliary, and are collateral vessels rather than shunts. For a review of collaterals, shunts and neovascularization, refer to Table 1. In cases of CRVO, the collateral vessel, if present, can be seen on the surface of the optic disc. If the occluded vessel becomes patent over time as the obstruction resolves, the collateral will recede, as was observed in this patient (see Figure 3).[16]

Optociliary shunt vessels can also be present in optic nerve sheath meningiomas, which are associated with optic atrophy and progressive vision loss.[16] Imaging via CT or MRI scan of the head and orbits can be performed to rule out this condition, as was completed in this patient. If not congenital, in addition to vascular occlusion and optic nerve sheath meningioma, other identified causes of acquired collateral vessel development include optic disc drusen, chronic papilledema, high myopia and diabetes.[13,16–18]

In summary, impending central retinal vein occlusions may be considered a sub-classification along the spectrum of CRVO. It is important to recognize that this condition may represent the prodromal signs of a CRVO, or may resolve without sequelae. In the presence of other confounding factors, such as an optociliary shunt vessel as seen in this case, it is important to rule out other diagnoses while also assessing for underlying risk factors for CRVO. As there is a strong association of CRVO with an underlying systemic condition (dyslipidemia, diabetes, systemic hypertension, cardiovascular disease), it is important to communicate with the patient's primary care physician. The increased use of scanning laser ophthalmoscopy, SD-OCT, and fundus auto-fluorescence may allow clinicians to monitor this condition in certain cases to avoid more invasive procedures, such as fluorescein angiography.

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Are the Members of Your Team Linchpins?

Pauline Blachford

Pauline consults optometrists on recalling and other elements of practice management. She has worked on the business side of optometry for over two decades, and is highly sought after for her results-based strategies. Through her private consultations, conference presentations and regular columns in the Canadian Journal of Optometry, Pauline reaches optometrists and their teams across North America with her thought-provoking, engaging and inspiring insights. For more information, visit paulineblachford.com.

Consider the following: according to a 2013 employee engagement report conducted by Gallup, less than one in three employees feel engaged at work, meaning the vast majority of workers – in this case, 70 per cent of American workers – are not reaching their full potential.[1] Nearly one in five employees were so disengaged that they were more likely to negatively influence coworkers, miss workdays and drive customers away.[2]

Now, consider this: research conducted by Brand Identity, Inc. found that nearly 80% of leaders don't feel that their staff consistently demonstrates drive, energy or a focus on results. Brand Identity's research also discovered that 70% of leaders do not believe that their employees are as committed as they should be to increasing sales, or supporting the growth of the business they work for.[3]

These two pieces of research highlight a critical disconnect. In June, I had the opportunity to speak directly to a room full of optometric assistants at the Saskatchewan Association of Optometry conference in Regina about seeing the bigger picture in terms of the role they could play in their current positions. Identifying areas for improvement, proposing new ideas and executing them – all for the benefit of your practice – is what I refer to as being a linchpin, a term popularized in this context by author Seth Godin.[4]

A linchpin employee has drive, energy and focus: qualities that leaders in Brand Identity's research found to be missing in most of their staff members. I've written before about the benefits that come from engaging your employees,[5] but simply put: when companies engage their customers *and* their staff, they see a 240% boost in performance-related business outcomes, compared with companies who write engagement off.[6] The data is there, but do employees want to be linchpins?

At the conference in Regina, I asked optometry employees directly whether they knew why they were in their current roles at their respective optometry practices.[7] Around 43% of the respondents answered that they discover their why – and the satisfaction that comes with it – from knowing where they add the greatest value.

Additionally, when asked what they would like to get out of their role, 29% of participants wanted more stimulation and personal satisfaction, and 18% more training opportunities. Coupled with the desire to add value, that is a lot of untapped potential, especially when increased employee engagement translates into increased productivity and bottom-line results.

What inspires and engages your employees should not be overlooked: this is a key insight into what type of rewards or opportunities might drive your staff to work with you to build your practice. After all, who wouldn't want a recaller to make it their personal mission to ensure each OD's schedule is fully booked every week? Or a receptionist who boosts eyewear sales by ensuring patients' eye care needs are met upon checkout?

Your employees likely have the desire to be more challenged or engaged at work, as well as the ideas for how they can better your business. During my presentation, the ideas that optometry staff shared with me included having ODs in regular staff meetings, brightening office colours, completing and mailing the rebate forms for patients who purchase a year's supply of contact lenses, and direct billing to insurance companies. These were all valuable suggestions, and the staff in my session were engaged and brimming with ideas to share – they just needed to feel incentivized, empowered and trusted to contribute them.

There are several ways leaders can begin creating a practice environment where staff have the opportunities to be employee superstars. According to Vistage speaker Gregg Lederman, managing partner at Brand Integrity, Inc., employers need to set expectations with their employees, communicate those expectations well and hold staff accountable.[8] Offering training, engaging individual strengths, advancing staff members and motivating them are also great ways to create a linchpin team of staff in your practice.[9]

On the employee side, I coach optometry staff that being a linchpin in any role is achievable by following five key steps: identify the needs, strengths and opportunities of

their practice; understand their own capacity to contribute; implement ideas that play to their personal skills and the needs of their practice; foresee the obstacles that may challenge their ideas; and measure the results of their execution to ensure their ideas are having a positive and quantifiable impact. An employee's ability to contribute, however, is always limited by the opportunities they are given to do so. To this end, I also encourage ODs to champion staff brainstorming sessions, and to begin building a practice culture that fosters, supports and rewards the sharing of ideas. When the culture of a practice encourages staff to be linchpins, any employee's ability to come up with their own ideas, voice them, measure them and take ownership of them flourishes, and often leads to success when the five steps above are followed.

At the end of the day, the real bottom line is that your employees are your greatest resource for boosting yours. When optometric assistants own their positions through training and growth, their clinics become a place patients want to visit, where co-workers want to work together and where ODs will be more financially successful.

Footnotes

1. Gallup. State of the American workplace: employee engagement insights for U.S. business leaders; 2013
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Negotiating the Operating Costs as Rent

By Jeff Grandfield and Dale Willerton – The Lease Coach

Dale Willerton is the founder of The Lease Coach and Jeff Grandfield recently joined him as partner. Dale and Jeff are commercial lease consultants who work exclusively for tenants, and are also professional speakers and co-authors of Negotiating Commercial Leases and Renewals FOR DUMMIES. *Got a leasing question? Need help with your new lease or renewal?*

Call 1-800-738-9202, email DaleWillerton@TheLeaseCoach.com, or visit www.TheLeaseCoach.com. For a copy of our free CD, Leasing Dos & Don'ts for Commercial Tenants, please email your request to JeffGrandfield@TheLeaseCoach.com.

Readers of our new book, *Negotiating Commercial Leases & Renewals FOR DUMMIES*, will learn (in-part) that although most commercial real estate professionals may tell you that operating costs are not negotiable, there are aspects of these costs that can indeed be changed to the tenant's favour.

When it comes to operating costs (also known as Common Area Maintenance / CAM charges), the landlord wants to make sure that the tenants pay all these costs for the building. There's nothing unusual about that. However, when The Lease Coach analyzes operating costs for groups of tenants in a building, we often find that the tenants are subsidizing capital improvements that the landlord is using to enhance or increase the building and/or property's total value.

If a formal lease document uses sufficient detail to define what constitutes an operating cost, then the tenant has a fighting chance to at least examine, question, and negotiate each listed item. We remember one Florida landlord who charged all of his tenants an annual fee to have a pool of money available for hurricane damage not fully covered by insurance. With being skeptical about this claim, we inspected closer and noticed there was no end to this billing or reserve fund … tenants were required to pay it for the entire duration of their tenancy. If a tenant moved out at the end of their lease term, they did not receive any of the money back they had paid – even if there had been no hurricane damage. In this case, this landlord was simply creating a slush fund to do with as he pleased. With that said, look for odd clauses in your formal lease document and scrutinize them carefully – after all, it's your money! Look at what you're paying for.

The majority of commercial, office, and retail lease agreements may stipulate that the specific components of the operating costs that the tenants need to pay for. Typical examples of operating costs include general property maintenance, painting, lawn cutting, snow removal, property insurance, and so on. Remember, a ***valid*** operating cost is one that will benefit ***all*** of the tenants in the commercial property – not just one or two. Almost every lease agreement an operating cost clause and typically defines these common area maintenance charges in a short- or long-form manner. From your perspective as an optometrist tenant, longer is better as it creates more certainty for you.

Operating costs are charged proportionately to all tenants. If one tenant occupies seven percent of a commercial property, he/she can typically be required his/her proportionate share – 7% – of the operating costs as additional rent to the landlord. But consider for a moment that not all tenants use or consume operating costs proportionately. Would a convenience store or a bank contribute more to parking lot trash collection? Would a tenant on the first floor or the 20th floor of an office tower use the elevator more often?

We remember one dry cleaner who felt it was unfair that he had to pay his proportionate share of trash removal. He claimed that he created only one bag of garbage each week – he happily put this bag in his van, took it home with him, and then set it outside for pickup with his own household garbage. Yet he was forced to pay his proportionate share of trash removal just like all of the other tenants.

With ever-rising operating costs, you may wonder if it is possible to negotiate a cap on these expenses. Yes. In some cases, a slothful or cash-strapped landlord may have skimped on regular maintenance but after the property is sold to a more reasonable landlord several years' of deferred maintenance has to be caught up on at the expense of the present tenants. If you are trying to budget costs for the year, and your overhead rents are important to you, you may want to negotiate a 5 – 10 percent cap on operating costs so that your landlord can only raise them that amount annually as a maximum.

In response, your landlord may be willing to cap *controllable* operating costs – meaning that they won't cap property taxes or other such items that are beyond their own management

control. As a tenant, you may want to agree to this as a compromise – consider that any ceiling or restrictions that you can put on rising operating costs will ultimately benefit you.

Over the years, The Lease Coach has analyzed operating costs for many groups of tenants in commercial retail or office buildings. Often, this begins with a phone call from a disgruntled tenant who wants to challenge the landlord on payment of these costs. It is far more cost effective for that tenant to get his neighbours together and share in the cost of an operating cost analysis. Although some lease agreements state that the landlord provides the tenant with access to financial operating cost records, many leases do not. Some leases build in a 90-day or one-year statute of limitations, drawing the line on how far back the tenants can go. Remember that, as a tenant, you have rights. The landlord is acting as a steward of your money. Operating costs should not become a profit center for the landlord.

Operating cost discrepancies come in two flavours: honest mistakes or dishonest (deliberate, negligent, or fraudulent) calculations. In a building where the property is close to fully occupied or fully occupied, the landlord may have less reason to try to profit from operating costs. Still, the landlord may try to enhance the property with the tenant's money. On the other hand, however, when a commercial property has a number of vacancies, the landlord may want to avoid paying his proportionate share of operating costs for the vacant units. Therefore, the landlord may put language into the lease agreement stating that the operating costs for vacant units may be passed on to the tenants occupying the building. Obviously, in some cases, tenants can be carrying a very heavy financial burden if the commercial property is not fully leased.

Communicating with the landlord (both verbally and in writing) about any operating cost concern(s) you may have is imperative. And don't wait too long because the lease may stipulate a statute of limitations on adjustments. Sometimes the problem originates with the property manager but sometimes it comes from the owner or landlord purposefully taking advantage of the tenants in the property. Dale remembers his time as a commercial property manager when one landlord told him to find creative ways to charge every penny spent on the property back to the tenants. If you catch your landlord with his hand in the cookie jar, don't be too surprised if he's not communicative or cooperative with you.

Any number of other issues could be buried deeply within operating cost clauses. Optometrist tenants should be aware of the following as several examples:

Administration Fees

If tenants are paying the property manager's salary through operating costs, but the landlord adds a 15% administration fee to CAM costs, this can be considered *double-dipping* (or double-billing for essentially the same service). If the landlord levies administration fees on property taxes and/or insurance, note that can also be defined in the same manner as there is very little landlord's administrative work involved with these.

Utilities

Electricity, natural gas, and water may be provided by the landlord or separately metered for each tenant. In some cases, the landlord may have one meter on the property and a check meter on each tenant's unit to measure consumption. If you're paying your own utilities to the utility company you'll have your own meter. Often, the landlord bills back utilities to tenants in operating costs. Make sure that you know in advance what the lease agreement calls for so you don't pay twice.

Tenant Audit Rights

The landlord has a fiduciary responsibility for accountability to the tenants for the money collected from and spent on behalf of the tenants. The lease should include tenant audit rights which allow you the opportunity to examine the landlord's books, if necessary.

For a copy of our free CD, Leasing Dos & Don'ts for Commercial Tenants, please e-mail your request to JeffGrandfield@TheLeaseCoach.com.

Dale Willerton and Jeff Grandfield - The Lease Coach are Commercial Lease Consultants who work exclusively for tenants. Dale and Jeff are professional speakers and co-authors of Negotiating Commercial Leases & Renewals FOR DUMMIES (Wiley, 2013). Got a leasing question? Need help with your new lease or renewal?

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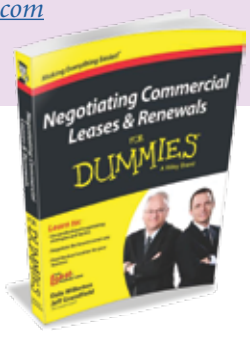


Patient Acquisition in Today's Busy Digital World

Kevin Wilhelm

Kevin Wilhelm is the president of 4ECPs, a business resource company for eye care professionals. 4ECPs offers services in Jobs, Training & Marketing. Visit their website at www.4ecps.com or email kevin@4ecps.com for more information.

One of the biggest challenges facing the independent eye care business in today's digital world is navigating new patient acquisition. Every business in every sector requires new customers in order to survive, but the landscape has shifted dramatically over the past decade. The competitive environment has expanded beyond the big box chains and now includes online retailers, funded by venture capitalists and looking to gobble up as much market share as possible. To stay viable, you need to play by a particular set of rules – rules set forth to ensure the health of your eye care business.

Rule #1 – Be Willing to Play Their Game

The days of running a great business and expecting growth to come organically through referrals are gone. Every business *will* get referrals, but not enough to survive. Online retailers are in front of every consumer, every day. They know how to target them, they know what to say with the convenience of online ordering. To compete head to head, you must be in the same arena as the online retailers – online! If the online retailers are investing in Facebook marketing, you should be too. Why not – if it didn't work for them, they wouldn't continute to invest heavily in online marketing.

There are two ways to really grow your eye care business in today's digital world – a great retail location (yes, still!) and marketing to customers online. There's no real way around it. People are busy, distracted, impatient, and price sensitive. To capture their attention (and their wallet), you must be in the right place at the right time. This is either through investing in a location with a high volume of foot traffic or growing your prominence online. Now, how much should you invest? That is a great question, but unfortunately too many variables exist to paint every situation with the same brush. The right amount is dependant on the goals set out by your business and the combination of internal and external factors facing your business. A good rule of thumb is to be willing to invest 10–15% of *desired growth*. For example, if you want to grow your revenue by $200,000 – you should be willing to invest at least $20,000 – $25,000 towards marketing your business online.

Rule #2 – Get Your Angle

Online retailers have their *angle*. They offer lower prices and higher convenience by allowing their patients to order from anywhere and anytime. We all know the drawbacks though – returns are *inconvenient*, selection can be limited and without a registered optician the right product is hard to convey to your patient as they are unsure how they'll look in their new frames or sunglasses.

Apparently the pros are outweighing the cons for most consumers and the scale continues to tip in their favour. Independent retailers need to get their *angle*, their reason to be chosen – their reason to entice someone to get off the couch and drive in to purchase their new set of glasses rather than have them delivered right to their door. So… what is *your* angle?

Please don't reply by saying the words "My angle is great customer service." No it's not. Great service is a necessity for any business to survive right now, not a value proposition. Without great service, your business wouldn't exist. So what else do you offer that makes your business *special*? Do you carry exclusive brands, utilize state of the art technology, carry a wide selection of products or do you offer lower prices

than anyone else? Your competitive advantage must extend beyond just the businesses around you – you also need to be aware of what online retailers are offering.

Rule #3 – Promote your Angle

Once you find your angle, you need to effectively promote it to your audience. Carrying a highly sought after fashion frame line will only help you if your patients know you carry it. Investing in a new piece of technology that detects eye disease earlier is a great tool for your business, but provides limited value unless people are coming in specifically *for that technology*. Promotion can include advertising through digital channels, like social media or video marketing. It can also include a great word of mouth campaign. It absolutely involves educating your internal team on how to position your value proposition to every single person that walks through your doors.

In order to compete with online retailers in this busy digital world, concentrate on providing an experience they can't get online by finding your angle and making sure the world knows about it.

Le recrutement de patients dans le monde numérique occupé d'aujourd'hui

Kevin Wilhelm

Kevin Wilhelm est président de 4ECP, entreprise de ressources professionnelles pour les professionnels des soins oculovisuels. 4ECPs offre des services portant sur l'emploi, la formation et le marketing. Pour en savoir davantage, consultez son site Web à www.4ecps.com ou envoyez un message électronique à kevin@4ecps.com.

Le recrutement de nouveaux patients constitue un des plus gros défis que doit relever le professionnel indépendant des soins oculovisuels dans le monde numérique d'aujourd'hui. Chaque entreprise de chaque secteur a besoin de nouveaux clients afin de survivre, mais le paysage a changé de façon spectaculaire depuis une décennie. L'environnement concurrentiel dépasse les chaînes de grandes surfaces et englobe maintenant les détaillants en ligne, financés par des investisseurs en capital de risque et qui cherchent à occuper la plus grande part de marché possible. Pour demeurer viable, il faut respecter un ensemble de règles en particulier – établies pour assurer la solidité de votre entreprise de soins oculovisuels.

Règle 1 – Être prêt à jouer le jeu

L'époque où l'on pouvait diriger une grande entreprise et s'attendre à une croissance d'origine interne basée sur les références est révolue. Toutes les entreprises *obtiendront* des références, mais pas suffisamment pour en survivre. Les détaillants en ligne sont devant tous les clients tous les jours. Ils savent comment les cibler, ce qu'il faut dire et ils offrent la commodité de commander en ligne. Pour affronter les détaillants en ligne, vous devez vous retrouver sur le même terrain qu'eux – en ligne! Si les détaillants en ligne investissent dans le marketing sur Facebook, il faut le faire vous aussi. Pourquoi pas – si cela ne marchait pas pour eux, ils ne continueraient pas d'investir énormément dans le marketing en ligne.

Il y a deux façons de faire vraiment grossir votre cabinet de soins oculovisuels dans le monde numérique d'aujourd'hui – un excellent point de vente au détail (et oui, ça marche toujours!) ou le marketing en ligne. Il n'y a pas vraiment moyen d'y échapper. Les gens sont occupés, distraits, impatients et sensibles aux prix. Pour attirer leur attention (et leur portefeuille), il faut vous trouver au bon endroit au bon moment. Il faut à cette fin soit investir dans un endroit très fréquenté par les piétons, soit élargir votre empreinte en ligne. Combien faut il investir? Voilà une excellente question, mais il existe malheureusement trop de variables pour présenter une réponse universelle. Le bon montant dépend des buts fixés par votre entreprise et de la combinaison de facteurs internes et externes auxquels elle fait face. Il faut en général être prêt à investir de 10 % à 15 % de la *croissance recherchée*. Par exemple, si vous voulez augmenter votre chiffre d'affaires de 200 000 $ – il faudrait être prêt à investir au moins 20 000 $ à 25 000 $ dans le marketing de votre entreprise en ligne.

Règle 2 – Trouver votre argument de vente

Les détaillants en ligne ont leur *argument de vente*. Ils offrent des prix plus bas et une plus grande commodité en permettant à leurs patients de commander de n'importe où et n'importe quand. Nous connaissons tous les inconvénients toutefois – les retours causent des *ennuis*, le choix peut être limité, sans un opticien agréé, le bon produit est difficile à trouver pour le patient et les gens ne savent pas de quoi ils auront l'air avec leur nouvelle monture ou leurs lunette fumées.

Les avantages semblent l'emporter sur les inconvénients pour la plupart des consommateurs et la balance continue de pencher en leur faveur. Les détaillants indépendants doivent faire connaître leur *argument de vente*, raison pour laquelle il faut les choisir – leur raison d'inciter quelqu'un à se lever et à prendre son auto pour aller acheter de nouvelles lunettes

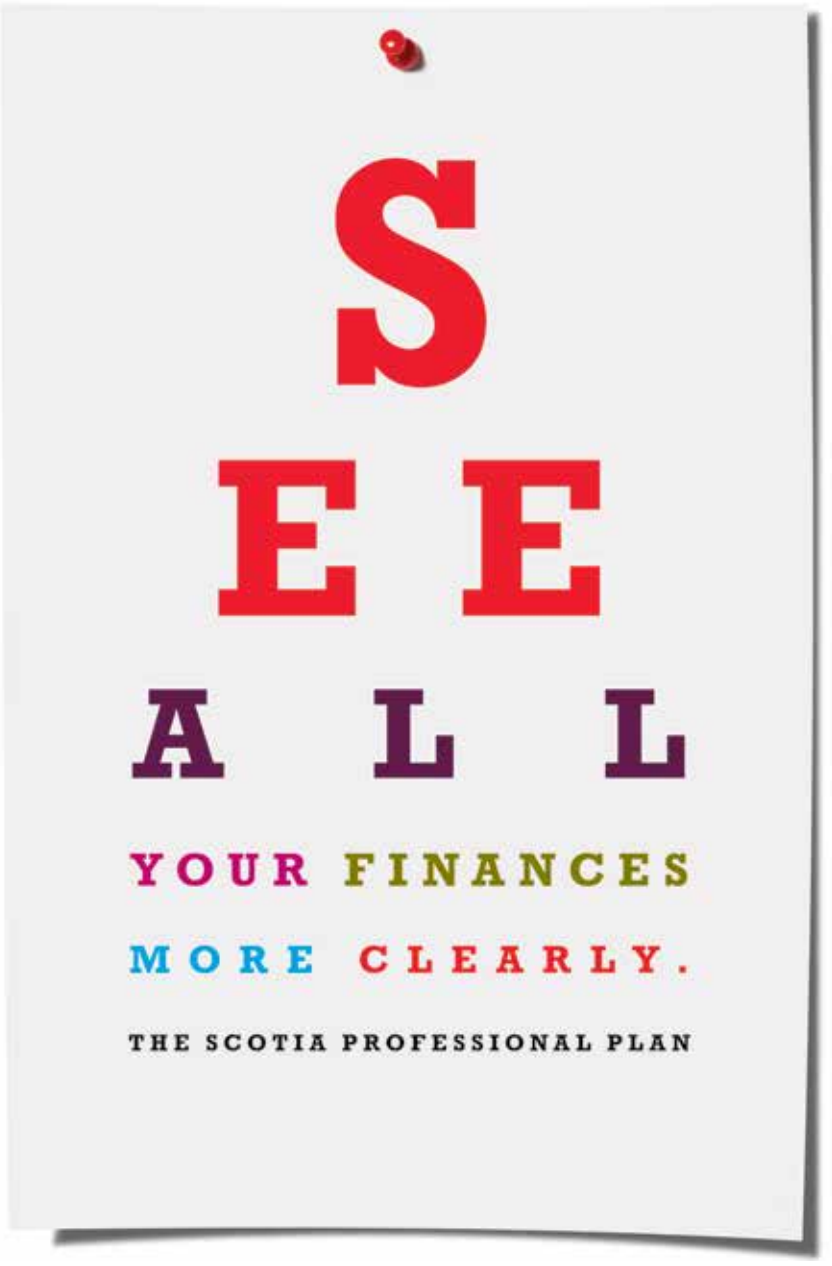
au lieu de les faire livrer chez soi. Donc… quel est *votre* argument de vente?

Je vous en prie, ne répondez pas en disant « C'est mon excellent service à la clientèle ». Ce n'est pas le cas. L'excellence du service est un incontournable pour toute entreprise qui veut survivre maintenant : ce n'est pas une proposition de valeur. Sans un excellent service, votre entreprise n'existerait pas. Qu'est ce que vous offrez donc d'autre qui indique que votre entreprise est *spéciale*? Offrez-vous des marques exclusives, utilisez-vous une technologie à la fine pointe, offrez-vous un vaste éventail de produits ou des prix moins élevés que partout ailleurs? Votre avantage concurrentiel doit l'emporter sur celui des entreprises qui vous entourent – vous devez savoir ce que les détaillants en ligne offrent.

Règle 3 – La promotion de votre argument de vente

Après avoir choisi votre argument de vente, il faut en faire la promotion efficace auprès de votre clientèle. Le fait d'offrir une gamme de montures à la mode très recherchées vous aidera seulement si vos patients savent que vous l'offrez. Investir dans une nouvelle technologie qui détecte plus rapidement les maladies oculaires, c'est excellent pour votre entreprise, mais l'investissement vous offre une valeur limitée sauf si les gens viennent profiter spécifiquement *de la technologie en cause*. La promotion peut inclure des publicités sur les canaux numériques ou le vidéomarketing. Elle peut aussi inclure une campagne de bouche à oreille. Il faut absolument informer votre équipe interne au sujet de la façon de positionner votre proposition de valeur auprès de chaque client qui franchit le seuil de votre porte.

Afin de faire concurrence aux détaillants en ligne dans notre monde numérique occupé, il faut chercher avant tout à offrir une expérience impossible à trouver en ligne en déterminant votre argument de vente et vous assurant que le monde le connaît.



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Innovations In Eye Care

Paul Karpecki, OD, FAAO

Paul M. Karpecki, OD, FAAO, received his doctor of optometry degree from Indiana University and completed a fellowship in medical cornea and refractive surgery in Kansas City in affiliation with the Pennsylvania College of Optometry. He is director of corneal services and the advanced ocular surface disease clinic at the Kentucky Eye Institute in Lexington, Kentucky.

A noted educator and author, Dr. Karpecki has provided over 1000 invited lectures at various meetings domestically and covering 4 continents. He has also authored over 1000 papers in journals, book chapters, eblasts and newsletters. He currently serves as the chief clinical editor for Review of Optometry.

Welcome to the new technology column titled Innovations in Eye Care. The purpose of this column is to educate our profession on the latest and future innovations that could impact our practices and our patients. It is said that approximately 60–70% of all patients research medical conditions on the internet before seeing their doctors. Sometimes an internet search could take them in rather unique and interesting directions related to the ocular disease they may have. They will often ask their eye doctors about these technologies and if you can answer their questions on innovative or future technologies, you will likely remain their doctor long-term, since this should instill further confidence in you.

Let's begin with a technology that may have the greatest impact on our patients vision and could treat a number of blinding conditions.

Stem Cell Research

By definition a stem cell is an undifferentiated cell of a multicellular organism that is capable of giving rise to infinitely more cells of the same type, and from which certain other kinds of cell arise by differentiation. Researchers first discovered ways to derive stem cells from mice embryos in 1981. When it comes to the eye, limbal stem cells have long been known to be the precursor to epithelial cell growth. The ability to harvest these cells in non-controversial ways such as from a cadaver eye (allograft) or pluripotent skin stem cells or from the patients other eye (autograft) are all being studied or currently being applied.

For example damage to corneal epithelial stem cells from trauma including chemical burns or contact lens overwear/inappropriate fit has led to epitheliopathies and persistent epithelial defects known as limbal stem cell deficiency (LSCD). Because the limbal stem cells are critical to epithelial healing, traditional corneal transplants typically fail. By transplanting the damaged limbal areas first, the subsequent corneal transplant is more likely to be successful. Limbal stem cell transplantation (from viable existing cells otherwise cadaver eyes) has led to recovery of stem cells and epithelia healing and recovery in corneas that had previously been opacified.[1] And the future is even more impressive with potential surrounding pluripotent skin stems cells being programmed as retinal pigment epithelial (RPE) stem cells for the treatment of macular degeneration.[2] Pluripotent means that the stem cell line can be differentiated into other types of cells, not just the type they originated from. In other words, researchers can take skin stem cells and differentiate them into multiple lines of RPE cells. Although early in progress, the possibilities are life changing. There are companies working on stem cell coated contact lenses that may be used in patients with a history of aniridia who eventually manifest corneal limbal stem cell deficiency, also patients with more severe conditions like Steven's Johnson syndrome, ocular pemphigoid, graft versus host disease (GVH) and even post chemical eye injuries.

Although there are ethical concerns with other forms of stem cells such as embryonic, new research shows that the results presented here suggest that human amniotic fluid may represent a new source for the isolation of stem cells.[1] In fact an entire line of RPE stem cells is being cultivated from a single source and may be the one source for all patients with AMD in the future.

This knowledge will help patients with longstanding opacified corneas where previous transplants have failed, it will help patients diagnosed with limbal stem cells issues ranging from aniridia and LSCD to the future as a significant treatment for patients suffering from age-related macular degeneration.

Photos courtesy Edward Holland, MD.

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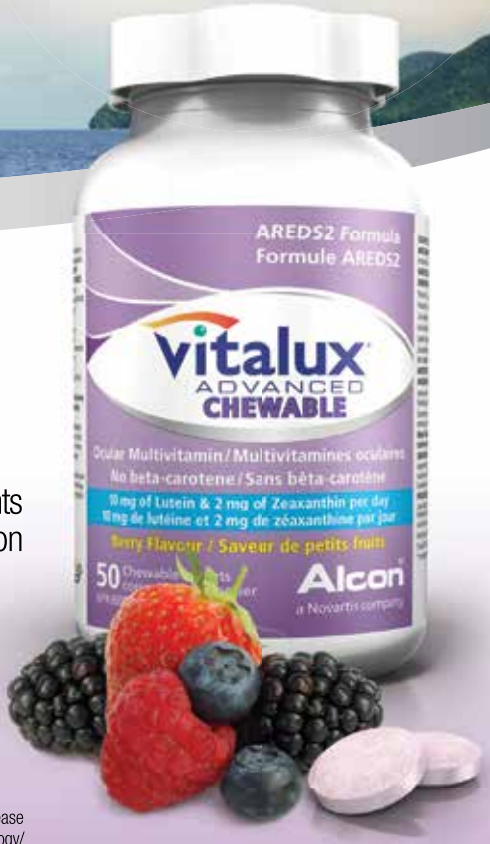

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