CONTEMPORARY USES OF BANDAGE CONTACT LENSES IN PRIMARY OPTOMETRIC PRACTICE

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FINANCIAL DISCLOSURE STATEMENT

*CLINICAL INVESTIGATOR
Alcon
Allergan
AMO
Bausch & Lomb
Ciba Vision
Cooper Vision
Paragon Vision Sciences
SynergEyes
Vistakon

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THERAPEUTIC BANDAGE CONTACT LENSES

QUESTIONS FOR CONSIDERATION

- WHAT IS THE RATIONALE FOR PRESCRIBING BANDAGE LENSES?
- WHAT ARE THE CONTEMPORARY CLINICAL INDICATIONS?
- WHAT ADJUNCT THERAPY IS NECESSARY?
- HOW EFFECTIVE ARE SILICONE HYDROGEL LENSES AS BANDAGE LENSES?

CORNEAL PATHOLOGY

DYSTROPHY & DEGENERATION

CHARACTERISTICS OF CORNEAL DYSTROPHIES

- EARLY ONSET (BY 3rd DECADE)
- HEREDITARY / APPROX 50% AUTOSOMAL DOMINANT
- CENTRAL CORNEAL LOCATION
- BILATERAL / SYMMETRIC
- NO ASSOCIATED SYSTEMIC DISEASE

CHARACTERISTICS OF CORNEAL DEGENERATIONS

- LATE ONSET
- NO HEREDITARY PATTERNS
- PERIPHERAL OR CENTRAL CORNEA
- UNILATERAL / ASYMMETRIC
- ASSOCIATED SYSTEMIC VASCULAR DISEASE
CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

EPITHELIAL BASEMENT MEMBRANE DYSTROPHY

- 40% PREVALENCE
- 75% BILATERAL
- 10% RCE
- LATE ONSET

TREATMENT
- LUBRICATE & HYPEROSMOTICS
- BANDAGE LENS
- DEBRIDEMENT, STROMAL PUNCTURE, or PTK

MEESMAN'S (EPITHELIAL) DYSTROPHY

- AUTOSOMAL DOMINANT
- EARLY ONSET
- EPITHELIAL VESICLES -> RCE's

TREATMENT
- LUBRICATE & HYPEROSMOTICS
- BANDAGE LENS
- PTK

REIS-BUCKLERS (BOWMAN'S) DYSTROPHY

- AUTOSOMAL DOMINANT
- EARLY ONSET
- HONEYCOMB OR FISHNET OPACITIES
- BM SCAR -> RCE's

TREATMENT
- LUBRICATE & HYPEROSMOTICS
- BANDAGE LENS or RGP's
- PTK -> PKP

LATTICE (STROMAL) DYSTROPHY

- AUTOSOMAL DOMINANT
- EARLY ONSET
- LATTICE AMYLOID OPACITIES
- BM DISRUPTION -> RCE's & POOR VA

TREATMENT
- LUBRICATE & HYPEROSMOTICS
- BANDAGE LENS or RGP's
- PTK -> PKP
CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

GRANULAR (STROMAL) DYSTROPHY
- AUTOSOMAL DOMINANT
- EARLY ONSET
- CORNFLAKE HYALIN
- OPACITIES
- BM DISRUPTION -> RCE’s & POOR VA

TREATMENT
- LUBRICATE & HYPEROSMOTICS
- BANDAGE LENS or RGP’s
- PTK -> PKP

MACULAR (STROMAL) DYSTROPHY
- AUTOSOMAL RECESSIVE
- EARLY ONSET
- GROUND GLASS
- MPS OPACITIES
- BM DISRUPTION -> RCE’s & POOR VA

TREATMENT
- LUBRICATE & HYPEROSMOTICS
- BANDAGE LENS or RGP’s
- PTK -> PKP

CENTRAL CRYSTALLINE (STROMAL) DYSTROPHY
- AUTOSOMAL DOMINANT / BILATERAL / EARLY ONSET
- NEEDLE SHAPED CHOLESTERAL CRYSTALS
- SLIGHT REDUCED VA

TREATMENT
- MONITOR
- (CHOLEST / TRIGLYCERIDES)
- PKP RARE

FUCH’S (ENDOTHELIAL) DYSTROPHY
- BILATERAL / LATE ONSET
- GUTTATA -> STROMAL & EPITH EDEMA -> RCE’s & POOR VA

TREATMENT
- LUBRICATE & HYPEROSMOTICS
- BANDAGE LENS
- PKP
CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

POSTERIOR POLYMORPHOUS (ENDOTHELIAL) DYSTROPHY

* BILATERAL / EARLY ONSET
* SWISS CHEESE VESICLES -> STROMAL & EPITH EDEMA
* SLIGHT REDUCED VA

TREATMENT
* MONITOR
  (GLAUCOMA & KERATOCONUS)
* LUBRICATE & HYPEROSMOTICS
* PKP

CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

SALZMANN’S NODULAR DEGENERATION

* ASYMMETRIC / POST INFLAMMATION
* ELEVATED HYALINE NODULES -> RCE’s & IRREG ASTIG -> POOR VA

TREATMENT
* LUBRICATE & HYPEROSMOTICS
* STEROID gtt
* BANDAGE LENS or RGP’s
* KERATECTOMY or PTK

CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

BAND KERATOPATHY

* ASYMMETRIC / ANTERIOR CORNEA
* SWISS CHEESE CALCIUM DEPOSITION -> RCE’s & POOR VA

TREATMENT
* LUBRICATE & HYPEROSMOTICS
* EDTA TREATMENT
  *
* PTK

CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

EXCIMER PTK INDICATIONS

Sher, etal Arch Ophth 109(4):1991

N = 33 EYES
OPACITY & IRREGULAR ASTIGMATISM

* IMPROVED SCARRING
* NO SIGNIFICANT ASTIGMATISM CHANGE
  *~ 50% IMPROVED VISUAL ACUITY
  *~ 50% HYPEROPIC SHIFT
CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

EXCIMER PTK INDICATIONS


N = 41 EYES
OPACITY & IRREGULAR ASTIGMATISM

- 77% VISUAL ACUITY >/= PREOPERATIVE LEVEL
- 87% CLARITY >/= PREOPERATIVE LEVEL
- 93% COMFORT >/= PREOPERATIVE LEVEL

GOOD -> SALZMANN / REIS BUCKLER / LATTICE
POOR -> HSV SCAR / BAND KERATOPATHY / TRAUMA SCAR

CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

EXCIMER PTK INDICATIONS

Aquavella, DePaolis, Ryan  Am Acad Ophth Mtg 1991

N = 10 EYES
RGP CONTACT LENSES AS PREDICTOR OF PTK SUCCESS

RGP CL VA 4+ SNELEN LINES > SPECTACLE VA
- 86% BENEFICIAL OUTCOME
RGP CL VA < 1 SNELEN LINE CHANGE FROM SPECTACLE VA
- 33% BENEFICIAL OUTCOME

CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

EXCIMER PTK CONTRAINDICATIONS

- UNCONTROLLED OCULAR DISEASE
- OCULAR SURFACE DISEASE, IRRITIS, UVEITIS, & HERPES
- PATHOLOGY OF POSTERIOR 2/3 OF CORNEA
CORNEAL PATHOLOGY
DYSTROPHY & DEGENERATION

EXCIMER PTK

PROCEDURAL CONSIDERATIONS
• TRANSEPITHELIAL ABLATIONS with MASKING AGENTS
• SMALL -> LARGE DIAMETER ABLATIONS
• PLANO ABLATION PROFILES
• LESS IS BETTER

POTENTIAL COMPLICATIONS
• DELAYED EPITHELIAL HEALING
• CORNEAL INFECTION
• PERSISTENT CORNEAL HAZE
• INDUCED REFRACTIVE ERROR
• LOSS OF BCVA

THERAPEUTIC BANDAGE CONTACT LENSES
RATIONALE FOR PRESCRIBING

HISTORICAL PERSPECTIVES
• Celsus -> Honey soaked linen
• Ridley -> Glass scleral shell
• Kaufman & Gasset -> Hydrophilic lenses
• Aquavella -> Expanded options

THERAPEUTIC BANDAGE CONTACT LENSES
MATERIAL PROPERTIES

HYDROPHILIC BANDAGE CLINICAL EFFICACY DUE TO
• Oxygen permeability
• Design flexibility
• Dimensional stability
• Optical clarity

THERAPEUTIC BANDAGE CONTACT LENSES
RATIONALE FOR PRESCRIBING

• Pain relief
• Protection
• Wound splinting
• Surface wetting
• Vision
• Drug delivery
THERAPEUTIC BANDAGE CONTACT LENSES

DOES DRUG DELIVERY MAKE SENSE?

  - Sustained release rates
    - Ciprofloxacin -> Etafilcon
    - Prednisolone phosphate -> Polymacon
    - Cromolyn Sodium -> Polymacon

  - Assessed AC [Drug] in 21 cataract patients
    - Group 1: Tobradex q15min x 3
    - Group 2: Tobradex soaked collagen shield
  - Anterior chamber levels of drug same for both groups
  - Anterior chamber levels were < MIC for both groups

- Drug impregnated contact lenses?

THERAPEUTIC BANDAGE CONTACT LENSES

WHEN IS AN ANTIBIOTIC NECESSARY?

- 60 Bandage lenses from PRK / PTK / LASIK patients
  - 18% contaminated with Staphylococcus epidermidis
  - Contamination more common in females
  - Contamination not specific to one procedure

- Always Use Prophylactic Antibiotics

- Antibiotics Do Not Significantly Alter Flora

- Antibiotics Should Be Used Judiciously

- Rx antibiotics for ‘at risk’ & postoperative eyes

THERAPEUTIC BANDAGE CONTACT LENSES

CLINICAL INDICATIONS

- Bullous keratopathy
- Corneal abrasion
- Persistent & recurrent corneal erosions
- Keratoconus adjunct
- Thygeson’s keratitis
- Corneal trauma
- Penetrating keratoplasty
- Excimer laser PRK or LASIK
**THERAPEUTIC BANDAGE CONTACT LENSES**

**CLINICAL INDICATIONS**

**Bullous keratopathy**

- Reduces pain
- Reduces edema & improves vision
- Additional considerations:
  - DSAEK
  - Penetrating keratoplasty

**Clinical Case – 56 yom**

Ocular History

- Keratoconus OU x 35 yrs
- Bilateral PKP x 30 yrs
- Bilateral RK x 25 yrs
- Bilateral IOL x 5 yrs
- Bilateral Graft Failure

BCVA (SCL + Rx)

OD 20/200
OS 20/150
THERAPEUTIC BANDAGE CONTACT LENSES
CLINICAL INDICATIONS

Clinical case – 56 yom
- 8 weeks s/p DSAEK OS
- BCVA 20/30
- PureVision 86 140 -050

Corneal abrasion
- Reduces pain
- Accelerates healing?
- Adjunct prophylactic antibiotics

N = 47 Eyes with corneal abrasion randomized to receive
- Patch
- Bandage lens
- Bandage lens & nsaid gtt
- No significant difference in healing time between treatment groups
- Bandage lens groups returned to normal activities more quickly
- Significant decreased pain in bandage lens & nsaid group

Persistent epithelial defect / recurrent corneal erosion
- Reduces pain
- Accelerates healing?
- Adjunct prophylactic antibiotics
- Additional considerations:
  - Is it trauma or dystrophy induced?
  - Is doxycycline, tarsorrphy, or amniotic membrane indicated?
  - Is stromal puncture, diamond burr debridement, or ptk indicated?
**THERAPEUTIC BANDAGE CONTACT LENSES**

**CLINICAL INDICATIONS**

**PERSISTENT EPITHELIAL DEFECT**
N = 30 eyes in 15 rabbits
6mm central corneal epithelial trephination
Collagen shield vs bandage lens vs control
Epithelial closure evaluated at 24-48 hours
- Collagen & bandage lenses performed similarly
- Wound healing slower in the control eye

**RECURRENT CORNEAL EROSION**
- Metalloproteinase-9 inhibitor
- Doxycycline
- Corticosteroids
- Effective in treating recurrent corneal erosions

Doxycycline 50mg po qd x 1mth & 20mg qd x 1 mth
Alrex 1gtt tid & Muro ung qhs

**Keratoconus with apical erosion**
Contact lens corneal abrasion incidence
784 Patient visits over 2 month period

Abrasions occurred in
- 7.4% Keratoconus patients
- 1.4% Non-keratoconus patients

- Compared controls, keratoconus w/o contact lens wear, & keratoconus with contact lens wear
- Keratoconus with contact lens wear had significantly increased IL-6, TNF alpha, ICAM-1, & VCAM-1 in the tear film

**THERAPEUTIC BANDAGE CONTACT LENSES**

**CLINICAL INDICATIONS**

**WHAT ABOUT STROMAL PUNCTURE, DEBRIDEMENT, OR PTK ?**
N = 104 Patients with history of recurrent corneal erosion
36% male & 64% female
45% History of trauma
29% History of ABMD
17% History of trauma & ABMD

- Conservative tx for 50% patients -> 6% recurrence
- Stromal micropuncture in 36% patients -> 40% recurrence
- Epithelial debridement in 10% patients -> 18% recurrence
- Superficial keratectomy in 4% patients -> 25% recurrence

**Keratoconus apical corneal abrasions**

- Reduces pain
- Improves contact lens tolerance
- Facilitates re-epithelialization

- Temporary application (~4 weeks)
- Bandage lens as piggyback carrier
- Daily disposable or silicone hydrogel
- Antibiotic ung qhs

Additional considerations:
- Piggyback, SynergEyes, or scleral lens ?
- Is ptk indicated ?
THERAPEUTIC BANDAGE CONTACT LENSES

CLINICAL INDICATIONS

THYGESON’S KERATITIS
- Reduces discomfort
- Improves vision?
- Unilateral vs bilateral application
- Worn daily

Additional considerations:
- Restasis?

KERAUTOCONJUNCTIVITIS SICCA
- Less pain, improved surface protection, & improved vision
- Maximal dry eye management essential prior to bandage lens
- Punctal occlusion critical
- Silicone hydrogel vs daily disposable
- Do the benefits outweigh the risks?

CORNEAL PERFORATION
- Small size with clean margins
- Temporary application
- Adjunct antibiotics
- Is cyanoacrylate indicated?

PENETRATING KERATOPLASTY
- Reduces discomfort
- Facilitates epithelial healing
- Adjunct antibiotics & steroids

Additional considerations:
- For how long is bandage worn?
THERAPEUTIC BANDAGE CONTACT LENSES

CLINICAL INDICATIONS

Dohlman K-Pro synthetic cornea
- Reduces discomfort
- Mitigates against epithelial migration
- Adjunct antibiotics & steroids
  - Vancomycin 20 mg/ml bid
  - Quixin bid
  - Pred Forte bid

Additional considerations:
- For how long is bandage worn?
- Kontur 55% H2O large diameter or Silicone hydrogel

THERAPEUTIC BANDAGE CONTACT LENSES

DISPOSABLE OPTIONS

- Disposable lens performance
- N = 28 patients post PKP surgery
- Ciba Focus lens
- Rationale: Epithelial defect, wound leak, graft edema, keratoconjunctivitis sicca, & to preserve epithelial integrity
- 71% overall success
- Complications: Stromal graft edema

THERAPEUTIC BANDAGE CONTACT LENSES

DISPOSABLE OPTIONS

- 40 yof with bilateral PKP for Sjogren’s corneal melt
- Post PKP persistent Epithelial defect
- Bilateral bandage lens
- Bilateral candida albicans Infection

THERAPEUTIC BANDAGE CONTACT LENSES

CLINICAL INDICATIONS

Perioperative PRK, PTK, Epi-LASIK, & LASEK
- Reduces pain
- Accelerates healing?
- Adjunct NSAID, antibiotic, & steroid gtt
- Oral analgesics

Additional considerations:
- Limit wear time to 4 days
**THERAPEUTIC BANDAGE CONTACT LENSES**

**CLINICAL INDICATIONS**

**Perioperative PRK**


N = 100 PRK Patients

Acuvue 2 vs Night & Day

Same postoperative medications

Monitored epithelial defect closure & discomfort

Night & Day ..... 

- Smaller epithelial defect
- Less discomfort
- Less tetracaine use … for postoperative days 1 & 2

**Perioperative LASEK**


N = 18 LASEK patients

PureVision vs Night & Day

Same p/o meds & 3 day evaluation

No significant difference in ...

- Conjunctival or limbal injection or subjective symptoms
- Complete closure in 89% PureVision & 82% Night & Day eyes


N = 32 LASEK eyes

PureVision vs Equis 60 as HBL for 5 days

- No difference in comfort, limbal hyperemia, or debris
- Improved epithelial status at day 5 for PureVision

**Perioperative LASIK**

Epithelial defect

Flap striae ?

Adjunct antibiotic & steroid gtt

Is it indicated beyond 2 days ?


Bandage lens for post-op day 1

N= 906 LASIK eyes

3 eyes (0.33%) developed epithelial ingrowth


Bilateral LASIK

Post-LASIK comfort evaluation

40 Patients – bandage contact lens vs no contact lens

26 Patients – bandage contact lens vs tetracaine

54 Patients – tetracaine vs voltaren

Patient preferences

- 30% Bandage contact lens vs 58% no contact lenses
- 15% Bandage contact lens vs 85% tetracaine
- 24% Tetracaine vs 39% voltaren
THERAPEUTIC BANDAGE CONTACT LENSES

CLINICAL INDICATIONS

4TH GENERATION FLUOROQUINOLONE RESISTANCE

- Case Reports: Bacterial keratitis postoperative PRK and LASIK
  - Pseudomonas aeruginosa post-PRK despite moxifloxacin prophylaxis
  - MRSA keratitis post-LASIK despite gatifloxacin prophylaxis

Successfully treated with fortified aminoglycosides

If suspected MRSA - > fortified vancomycin (20-50 mg/ml)

THERAPEUTIC BANDAGE CONTACT LENSES

QUESTIONS FOR CONSIDERATION

- How effective are silicone hydrogels as therapeutic bandages?

Disposable bandage lens performance (n = 39 patients)
- Acuvue or SeeQuence lenses worn from 1 – 56 days (mean = 8.75)
  - 35/39 (90%) improved symptoms
  - 34/39 (87%) improved objectively
- Tear gtt, antibiotic gtt, & steroid gtt where appropriate

Successes
- Epithelial defects
- Bullous keratopathy
- Post-op pain

Failures
- Dry eye

THERAPEUTIC BANDAGE CONTACT LENSES

DISPOSABLE OPTIONS

Disposable bandage lens performance (n = 45 patients)
Acuvue lens with 3 month follow-up
Bandages Rx for epithelial healing, structural support, and symptom relief
- 75% overall success
- Successes: epithelial defect, surgical aduncnt
- Reasons for discontinuation: dry eye, deposits, lens loss, & neovascularization

Bouchard, Trimble. CLAO 22(2) : 106, 1996.
Disposable bandage lens performance (n = 38 patients)
Acuvue lens with treatment ranging from 7 days to 12 months
Bandage Rx for mechanical protection, wound healing, and symptom relief
- 71% overall success
- Reasons for discontinuation: lens loss, discomfort, tight lens, & corneal ulcer

THERAPEUTIC BANDAGE CONTACT LENSES

COMPLICATIONS

Traditional lens options (n = 273 eyes)
- Severe keratitis = 1.4%
- Infiltrative keratitis = 4.0%
- Neovascularization = 2.9%
- Lens spoilage = 6.8%
- Lens loss = 12.5%
- Lens rejection = 13.7%

Disposable lens options (n = 68 eyes)
- Severe keratitis = 3.4%
- Contact lens acute red eye = 1.7%
- Lens spoilage = 3.4%
- Lens loss = 19.0%
- Lens rejection = 8.6%
THERAPEUTIC BANDAGE CONTACT LENSES

COMPLICATIONS

Clinical Case – AS 17 yom

Ocular history: ‘Cat scratch lacertion 2 weeks prior. Soflens 38 bandage lens OD. Ciloxan OD qid. No c/o.

VA OD cc 20/100 & OS s20/20.

Biomicroscopy – OD bandage lens clean & well positioned. Lids flat, conjunctiva clear, isolated corneal ‘macrovacuoles’ OD, ac with occasional cell, ac d&q, iris normal, lens clear.

Plan:
1. discontinue bandage lens OD
2. initiate suture removal.
3. Vigamox OD q2h
4. Refresh liquigel OD qprn

THERAPEUTIC BANDAGE CONTACT LENSES

DISPOSABLE OPTIONS

Historical advantages of disposable bandage contact lenses
- Minimize lens spoilage concerns
- Minimize lens hygiene concerns
- More cost effective alternative

Limitations of disposable bandage lenses
- Limited lens parameters
- Thin, low modulus designs
- Limited physiologic response

Potential advantages of silicone disposable bandage lenses
- Increased oxygen transmission -> improved metabolism
- Protein deposit resistance -> less spoilage related complications
- Increased mobility -> better tear exchange
- Increased modulus -> better retention & vision (?)
- FDA approved: PureVision, Night & Day, Oasys

THERAPEUTIC BANDAGE CONTACT LENSES

DISPOSABLE OPTIONS


PUREVISION

N = 54 eyes (post-op = 36 & medical = 18)
Average wear time = 1.1 months
- 96% improved corneal healing
- 96% improved pain relief
- 1 case of culture (-) infiltration

Arora, etal Cont Lens & Ant Eye  27(1):2004

PureVision

N = 30 eyes with wear time of 3 – 90 days
Used for epithelial defects, perforations, and corneal burns
- Therapeutic success in 87% of eyes
- Complications included dry eye, lens loss, tight lens, & infection

THERAPEUTIC BANDAGE CONTACT LENSES

DISPOSABLE OPTIONS

Montero, Mely, & Sparholt  CLAO 29(1S):2003.

NIGHT & DAY

N = 41 eyes (20 acute & 21 chronic cases)
Average wear time 17 days (acute) & 35 days (chronic)
- 78% experienced resolution of pain
- 74% experienced resolution of corneal signs
- 63% experienced improved vision
- 9.9% had a complication


NIGHT & DAY

N = 50 eyes with mean wear time of 2.4 months
Variety of medical & surgical cases
- Mean gain in visual acuity 1.8 +/- 2.8 logMAR units
- No significant complications
- “Less frequent handling may be be better for patients with epithelial trauma”
THERAPEUTIC BANDAGE CONTACT LENSES
DISPOSABLE OPTIONS

Clinical case – 51 yom

Ocular history: c/o painful, red, photophobic, and blurry right eye of 2 days duration. No trauma. No recent URI. Lubricating gtt of limited benefit. Has had 2 prior episodes over past year.

Systemic history: hypertension & gerd. Metoprolol, hctz, nexium. NKDA.

VA cc: OD 20/20- & OS 20/20

Biomicroscopy: ABMD OU & recurrent corneal erosion OD.

Plan: Systane ou qid, Muro (5%) ung ou qhs, f/u 1 week.

THERAPEUTIC BANDAGE CONTACT LENSES
DISPOSABLE OPTIONS

51 yom - 5 day f/u examination

CC: 'woke up @ 3am with intense pain OD' Compliant with medications.

VA cc OD 20/25. Biomicroscopy – persistent RCE OD. ABMD OU.

Plan: PureVision OD, Vigamox OD qid, f/u 1 week.

51 yom – 9 day f/u examination

CC: 'bandage lens great for 3 days, now uncomfortable' Vigamox OD qid.

VA cc OD 20/25-. Biomicroscopy – ABMD OU. Tight lens OD.

THERAPEUTIC BANDAGE CONTACT LENSES
DISPOSABLE OPTIONS

Clinical case – 51 yom

THERAPEUTIC BANDAGE CONTACT LENSES
DISPOSABLE OPTIONS

Clinical case - 56 yof

Ocular history: 'c/o blurred vision with eyeglasses. Has corneal dystrophy ou. Brother has corneal dystrophy with bilateral PKP and bilateral graft rejection … I want to avoid surgery. Muro gtt ou prn – limited relief.

VA cc OD 20/100 & OS 20/80.

Biomicroscopy – Grade 1 ABMD ou & grade 1+ Fuch’s endothelial dystrophy.

Impression: ABMD ou, Fuch’s corneal dystrophy ou.

Plan:

1. PureVision 87 145
   -300 -125 x 68 = 20/30
   -350 -150 x 107 = 20/25
2. AoSept clear care qhs / replace q 1 month
3. Muro ung ou qhs.
THERAPEUTIC BANDAGE CONTACT LENSES
DISPOSABLE OPTIONS

56 yof – 2 year f/u visit

Ocular history: No c/o. ‘vision in right eye a little blurry.’ Wearing soft lenses ou qd x 12+ hours. Clear care qhs. Replace q 1 mth. Muro ung ou qhs.

VA cc OD 20/60 & OS 20/30.

Biomicroscopy – Grade 1 ABMD ou & grade 3 Fuch’s endothelial dystrophy.

Impression: ABMD ou, Fuch’s corneal dystrophy ou.

Plan:
1. DSAEK consult.
2. Continue with scl ou qd.

THERAPEUTIC BANDAGE CONTACT LENSES
CLINICAL CONSIDERATIONS

Is IOP measurement through a bandage contact lens accurate?

10 normal & 10 abnormal eyes
Used tono-pen, goldmann, & pneumotonometry
Measurements taken over Acuvue, B&L O4, & Permalens
- All three tonometers measured accurately over all three bandage contact lenses for normal and abnormal eyes

Allen, RJ, etal ARVO 2004.
20 normal eyes
Goldmann tonometry with and without PureVision bandage lens
- No difference in IOP’s with or without bandage lens

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THANK YOU FOR ATTENDING THE VISION INSTITUTE’S 2009 ANNUAL CONFERENCE
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