Glaucoma Disease Progression
Role of Intra Ocular Pressure

Is “Good Enough”, “Low Enough”?

Dr. Shabbir Hussain

Glaucoma Diseases Progression Key Considerations

- Good number of patients may be diagnosed only after some damage the optic nerve
- Even when 40% of the nerve fibers are lost, patients can retain normal visual field[2]
- 56% of all newly diagnosed patients in the US present with moderate Glaucoma (already suffered optic nerve damage) at the time of diagnosis[3]
- Rate of disease progression can vary from patient to patient
- Predicting the disease progression course is difficult

Glaucoma Diseases Progression
Key Considerations

- Land mark studies like AGIS, OHTS, EMGT illustrate the benefit of IOP reduction in all types of Glaucoma patients regardless of the severity of disease[1,4-6]
- Lowering intraocular pressure can
  - Prevent further progression of existing field damage
  - Prevent optic-nerve damage from progressing to visual field damage
  - Prevent ocular Hypertension from progression to nerve damage

Glaucoma Diseases Progression
High Risk Groups

- Patients on beta-blocker therapy for long time and experiencing “Drift”
- Patients who do not respond sufficiently to Latanoprost
- Patients who have not achieved their target IOP with current medications
- Patients with some visual field damage
- Patients with some optic nerve changes
- Patients on multiple drug therapy
- Patients with high baseline IOP
- Patients having more than one risk factor like heredity, Diabetes, Hypertension

Glaucoma Treatment:

Aim to Achieve and Maintain Lower Target Pressures and prevent disease progression

- **Evidence from controlled, prospective, randomized clinical trials:**

  Reducing IOP to lower target pressures can prevent glaucoma and slow or stop progression

  - **OHTS**
  - **EMGT**
  - **CIGTS**
  - **CNTG**
  - **AGIS**

Ocular Hypertension Treatment Study
(OHTS)

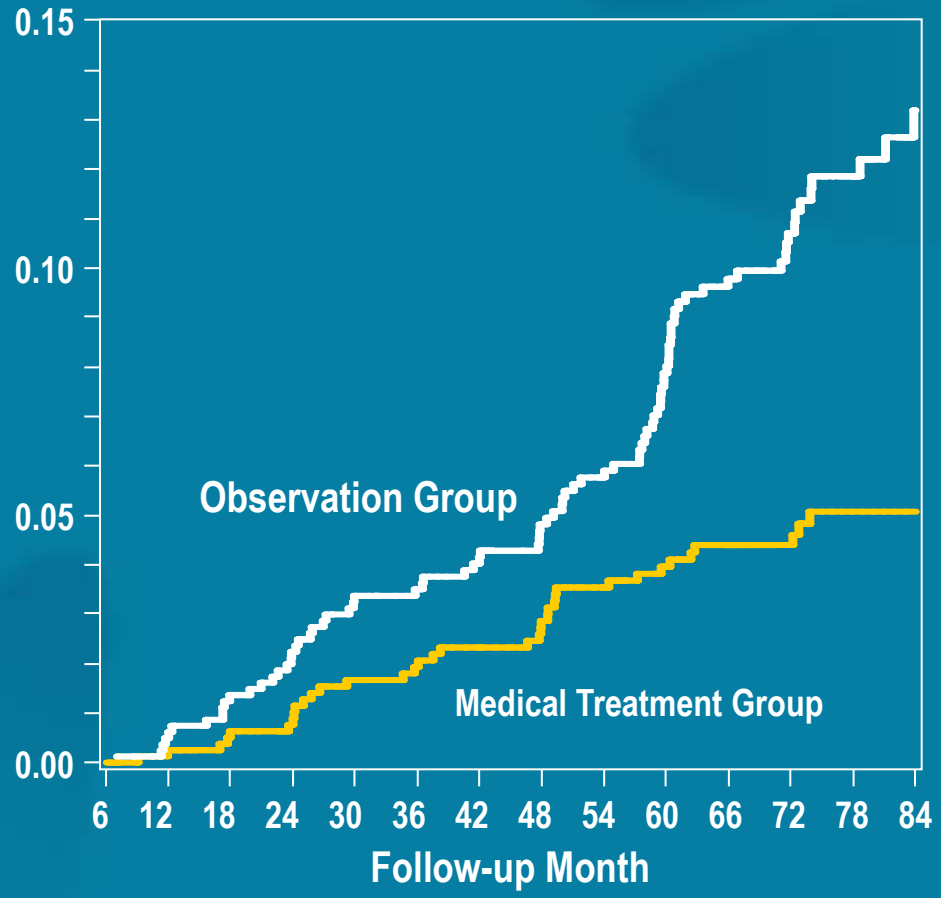
- **Objective:** To determine the safety and efficacy of topical medication in delaying or preventing the onset of glaucoma
- 1636 participants randomized to:

  Observation or topical glaucoma medication

Kass et al, 2002

Lowering IOP:

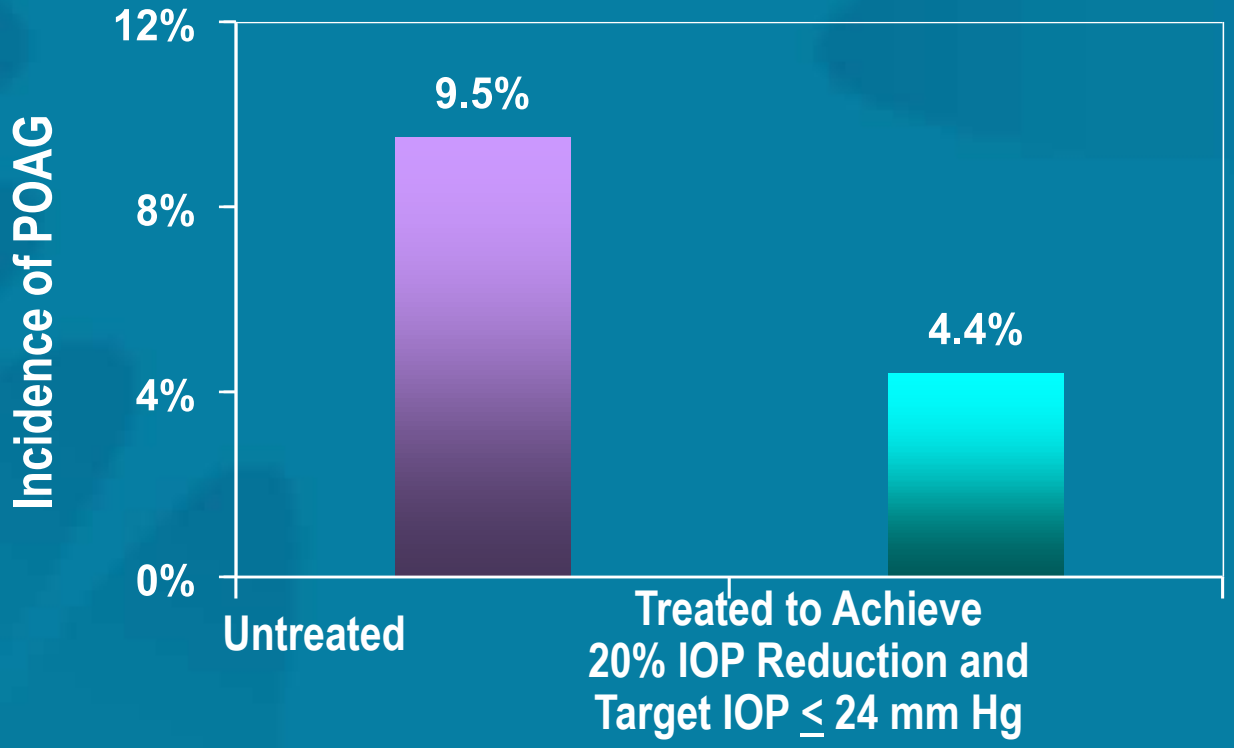
Delays or Prevents the Development of POAG



Hazard Ratio 0.40
95% CI (0.27, 0.59)
***P* < .001**

Kass, 2002

IOP Lowering in OHT Reduces the Incidence of POAG



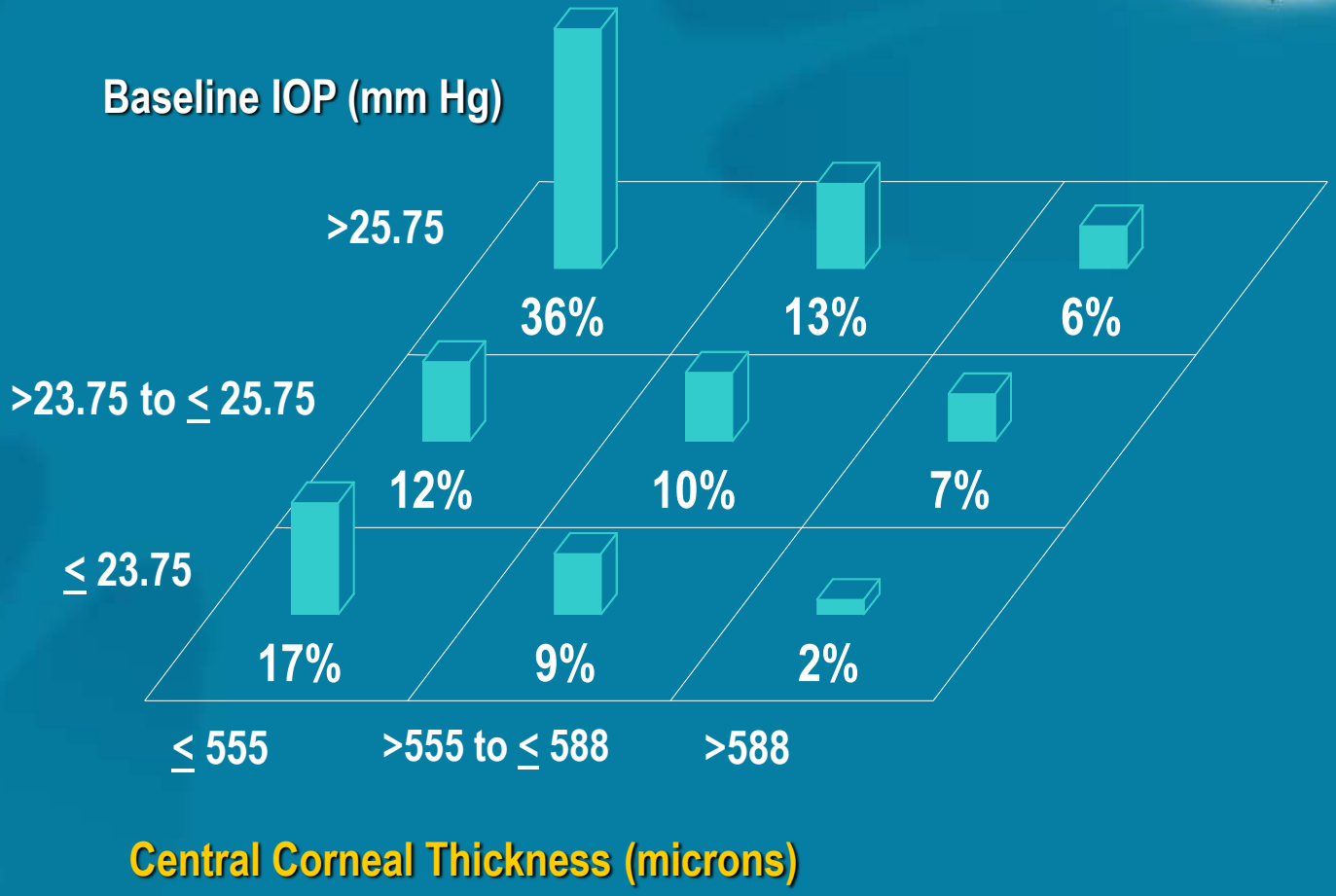
Kass, 2002

OHTS Results

Arch Ophthalmol 2002; 120: 701

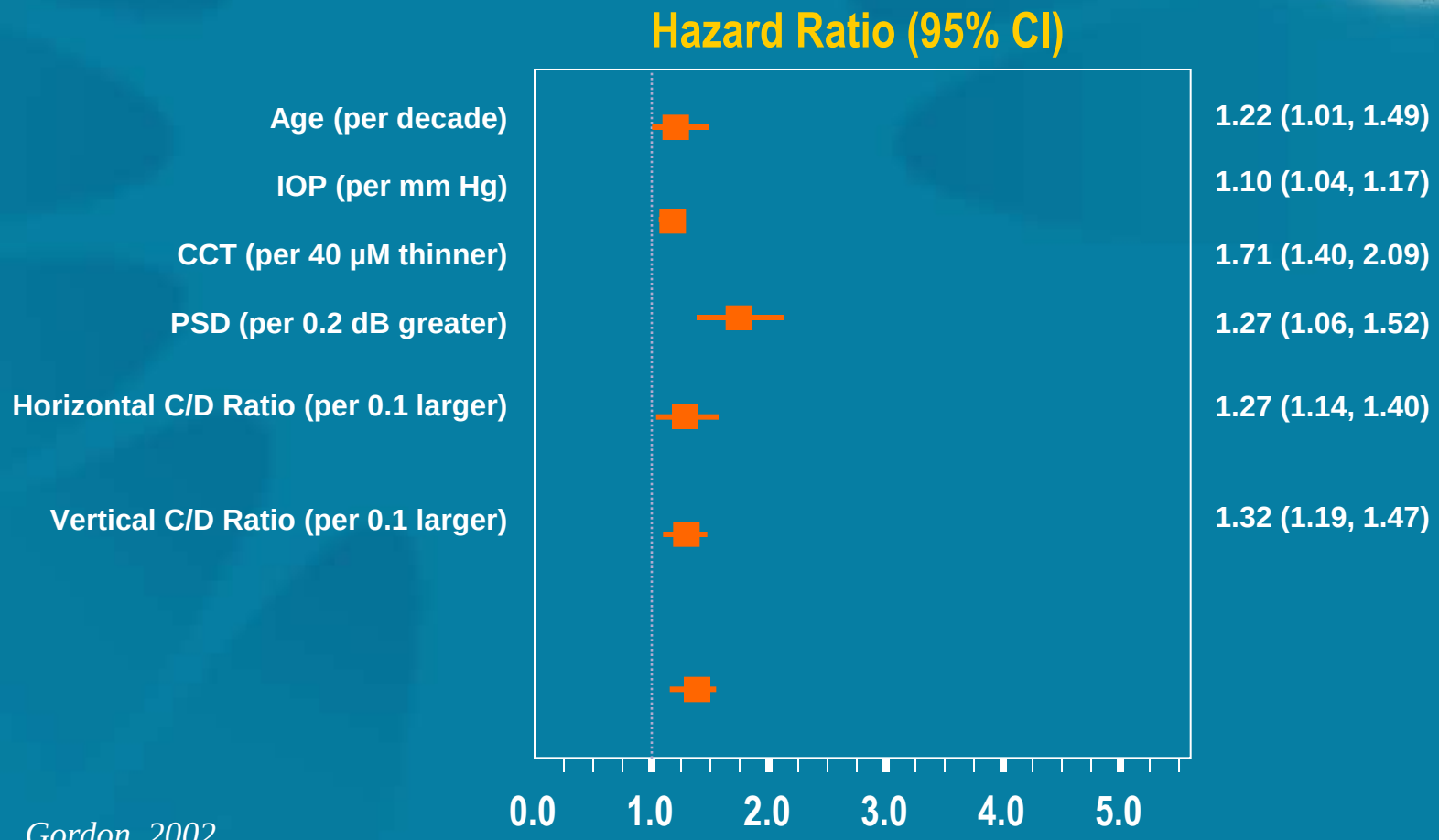
- **5 years**
- **Cumulative probability of POAG**
  medication group = 4.4% (N = 817)
  observation group = 9.5% (N = 819)
- **Endpoint > 50% optic disc alone (no VF loss)**

Development of POAG – Observation Group



Gordon, 2002

Risk Factors for the Development of POAG in OHT



Gordon, 2002

Early Manifest Glaucoma Trial (EMGT)

- **Objective: To compare the effect of immediate therapy to lower IOP versus late or no treatment on the progression of newly detected open-angle glaucoma**

- **255 patients randomized to:**

  Laser trabeculoplasty plus topical betaxolol or to no initial treatment

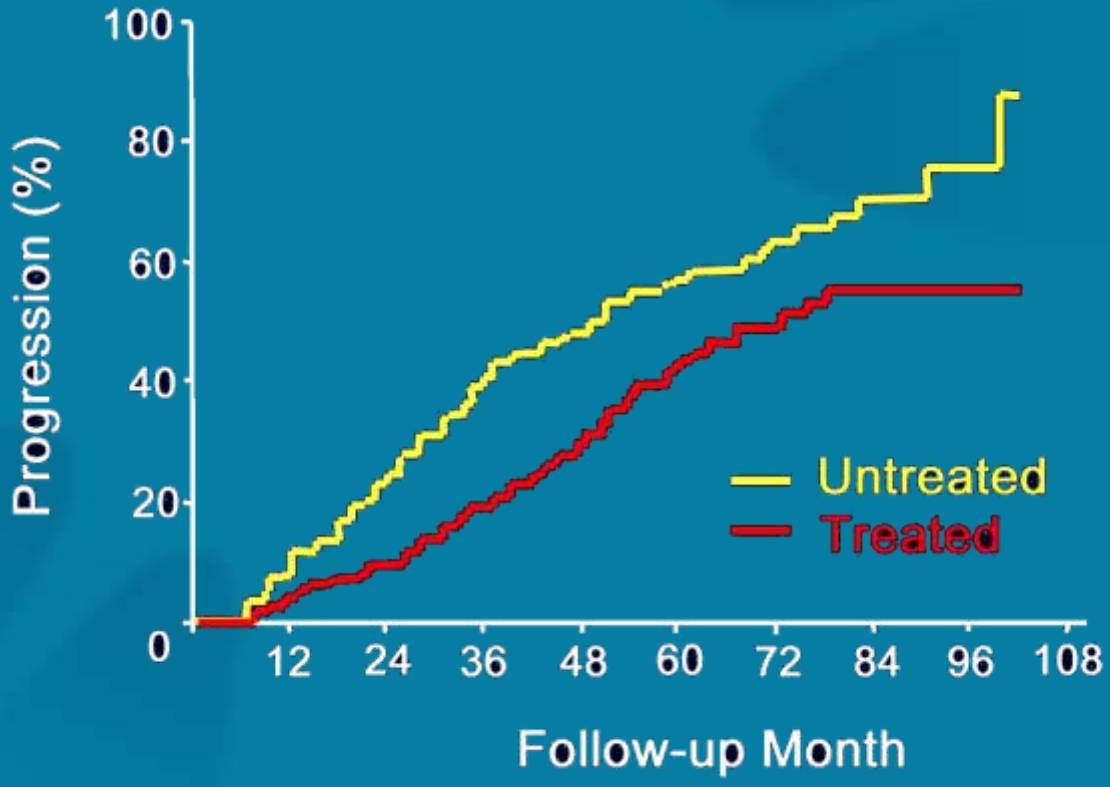
Heijl, 2002

Treatment and Observation Groups:
IOP and Safety Results

- In treated patients, IOP was **reduced 25%** from a baseline of 20.6 mm Hg to 15.5 mm Hg at month 3
- Treatment was well-tolerated but associated with increased incidence of lens opacities

Heijl, 2002

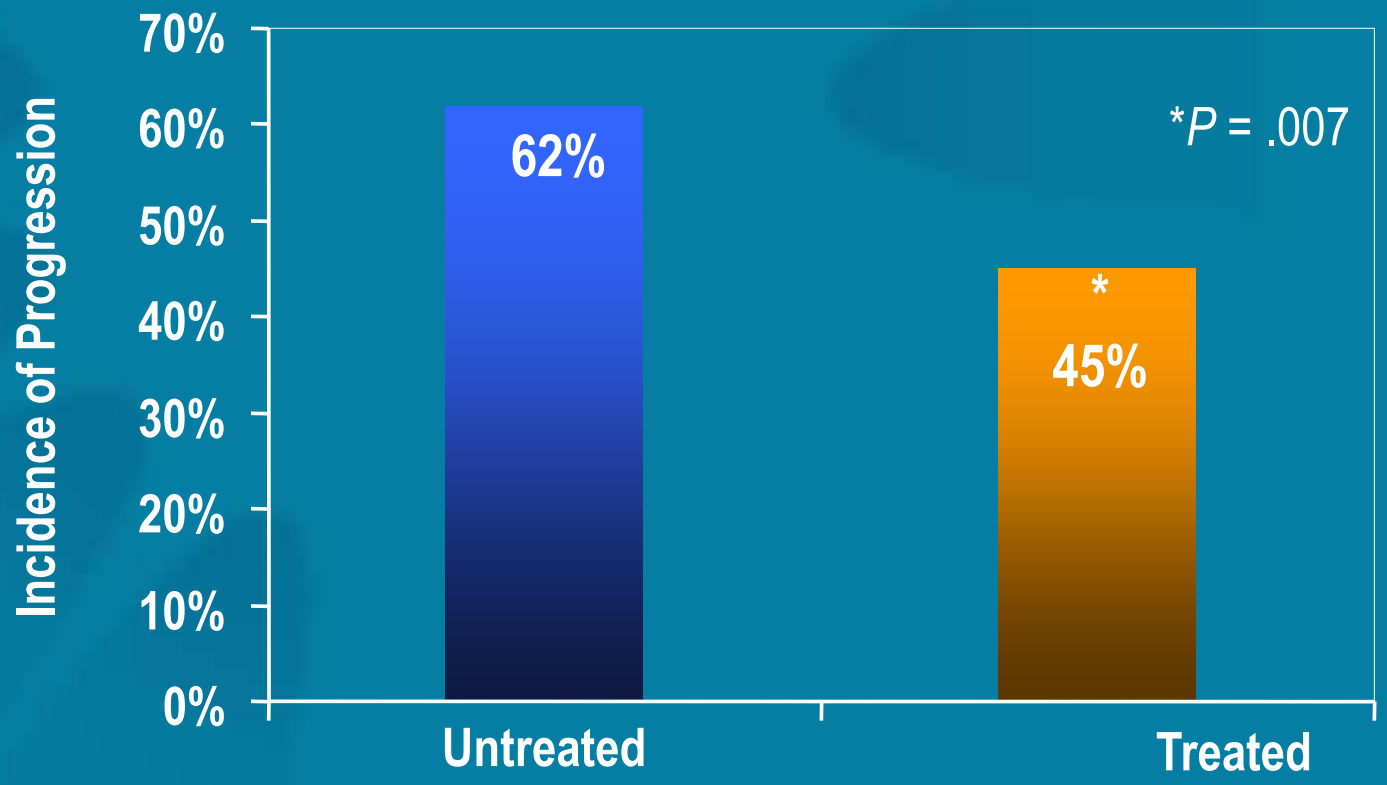
Early Treatment Reduces and Delays the Progression of Glaucoma



*Similar findings in patients with baseline IOP < 21 or > 21 mm Hg

Heijl, 2002

Fewer Treated Patients Have Glaucoma Progression



Heijl, 2002

Benefit of 1 mm Hg Additional IOP Lowering

- Each incremental 1 mm Hg decrease in IOP was associated with a:

  10% decrease in the risk of glaucoma progression

Heijl, 2002

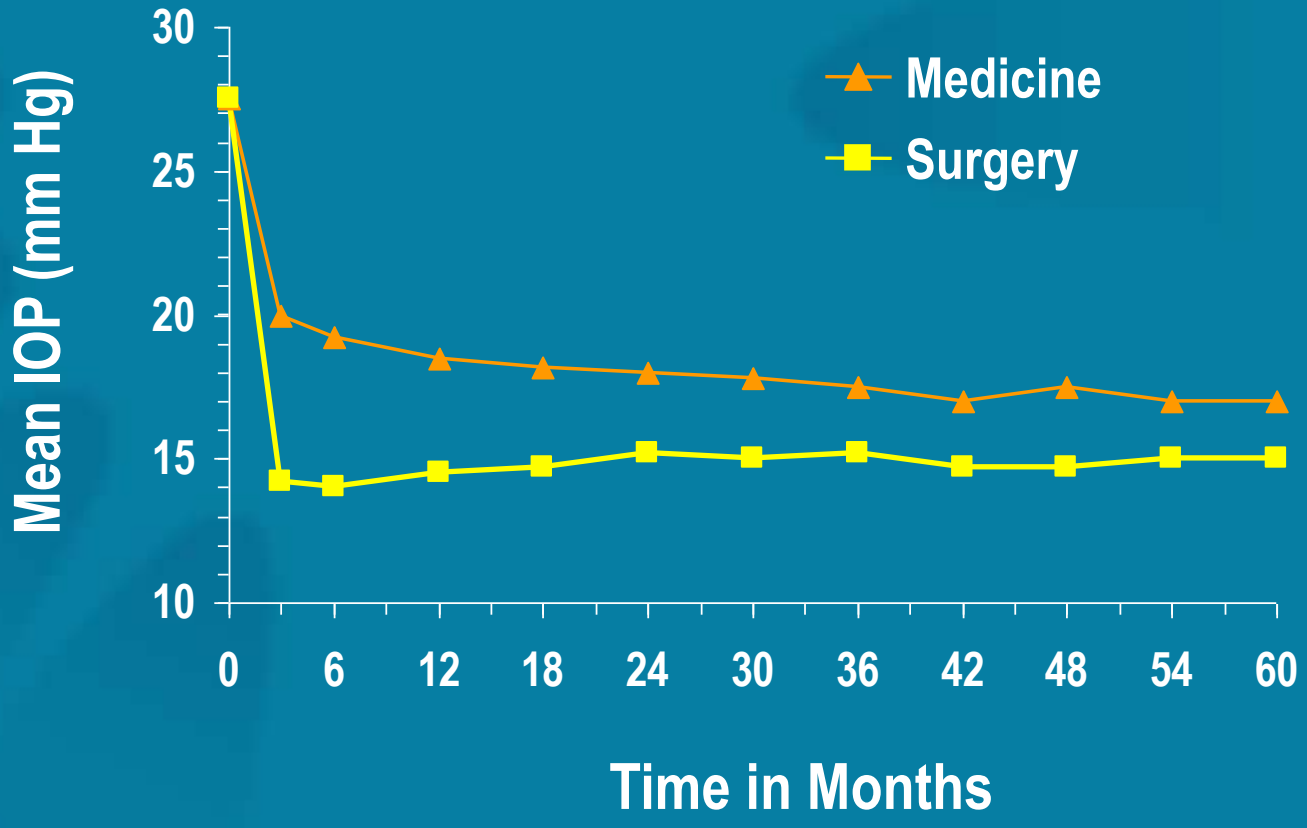
Collaborative Initial Glaucoma Treatment Study (CIGTS)

- Objective: To determine if newly diagnosed patients with open-angle glaucoma are better treated initially with medication or filtration surgery
  - Medication group: n = 307
  - Surgery group: n = 300

Lichter et al, 2001

Medical Management vs Surgery

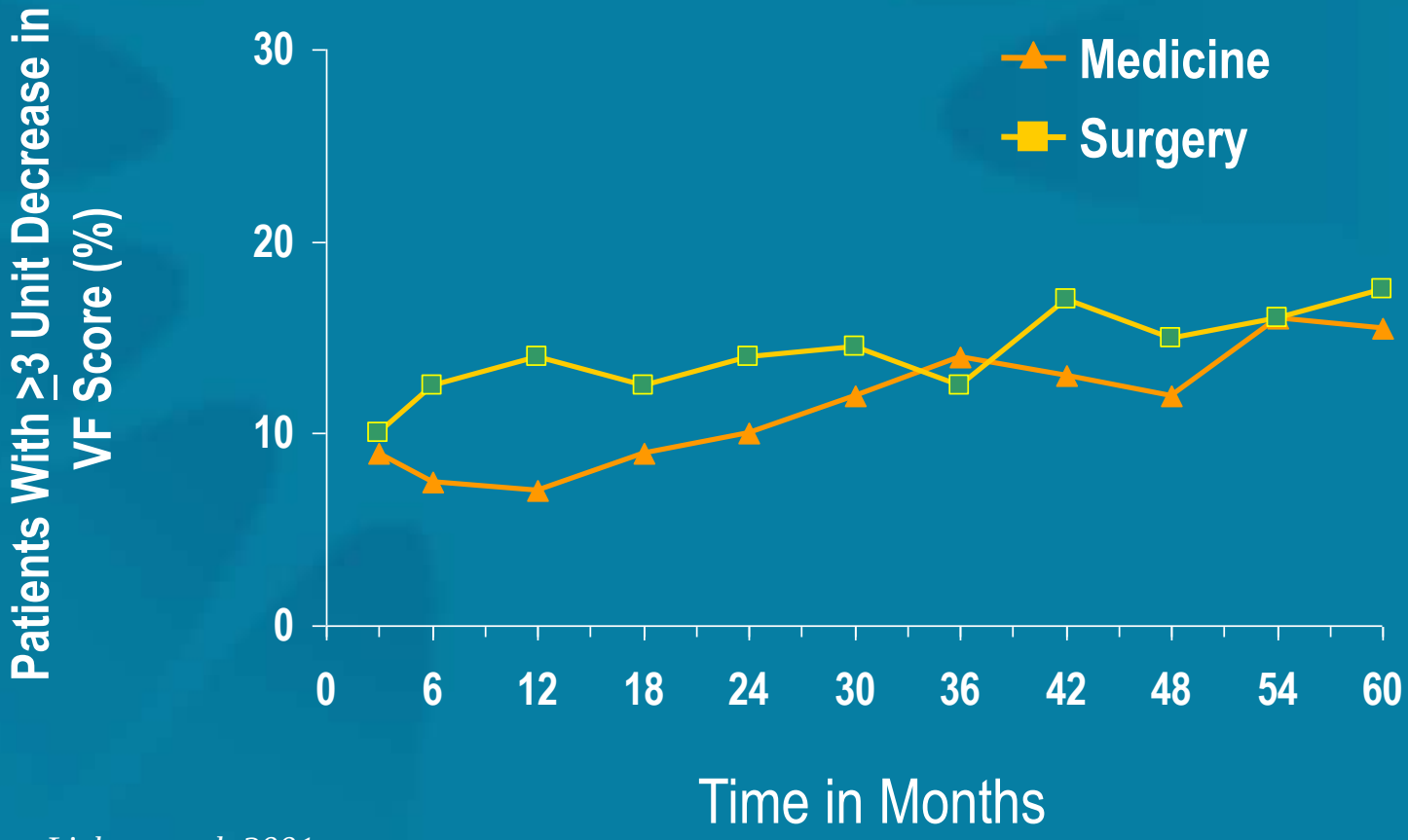
Both Lower IOP



Lichter et al, 2001

Medical Management vs Surgery

Both Effectively Prevent Visual Field Loss



Lichter et al, 2001

Implications of EMGT and CIGTS:

Optimal Treatment for Early Glaucoma

- Patients with any field loss should be treated aggressively to reach low pressures that reduce the risk of progression
- Both medical treatment and surgery effectively reduce IOP and the risk of progression
  - No change in usual approach at this time (medical treatment first for most patients)

Collaborative Normal-Tension Glaucoma Trial (CNTG)

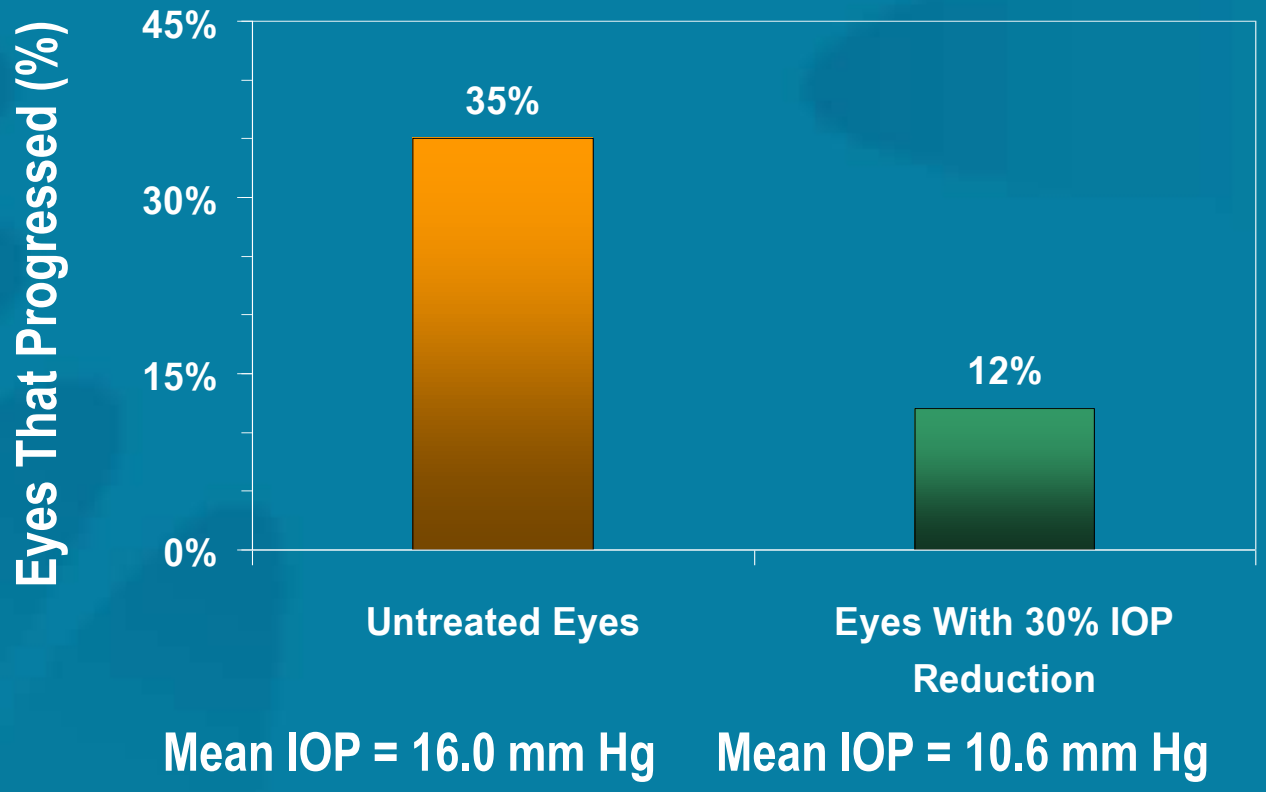
- **Objective:** To determine if IOP-lowering treatment is effective in reducing the progression of normal-tension glaucoma

- 140 eyes randomized to:

  Medical or surgical treatment (target 30% below baseline) or no Tx

CNTG, 1998

Lowering IOP Reduces the Risk of Vision Loss in NTG



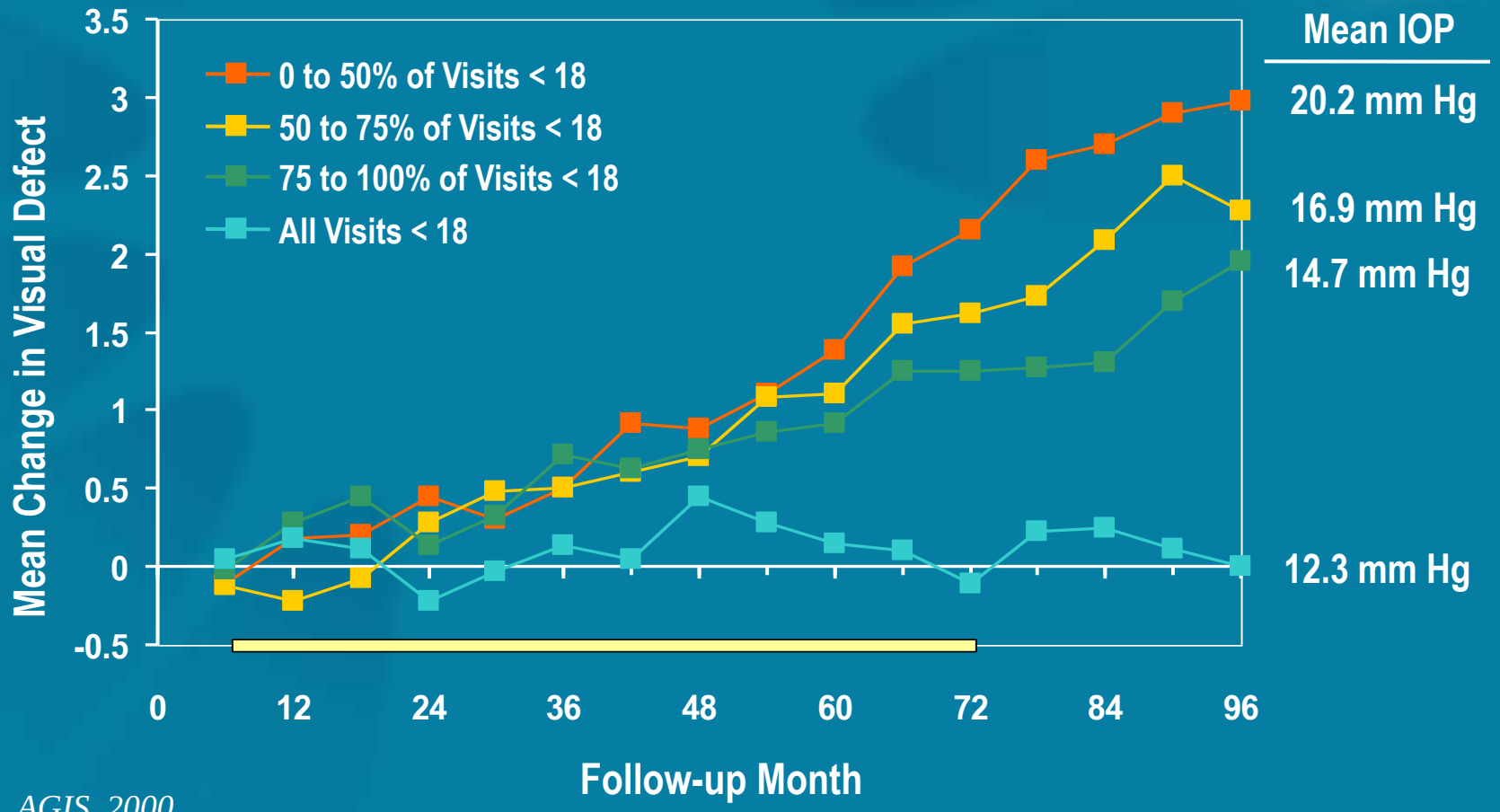
CNTG, 1998

Advanced Glaucoma Intervention Study
(AGIS) 7

- **Objective:** To determine the effects of surgical and laser IOP-lowering procedures in glaucoma patients with IOP uncontrolled on medications
- 789 eyes
- Analyses of IOP lowering and progression:
  - **Predictive:** Does IOP during first 1.5 years predict later visual field loss?
  - **Associative:** Are consistently low pressures associated with stable visual fields?

AGIS, 2000

Consistently Low IOP Reduces Vision Loss in Advanced Glaucoma



AGIS, 2000

Low Target Pressure:

Better Prognosis for Glaucoma Management

- **Patients with IOP < 18 mm Hg (mean 12.3):**
  no mean change in visual fields over 8 years
- **Aggressive treatment had a more favorable outcome**
  - **Pressures in the low normal range may be needed for some patients who already have field loss**

Management of Glaucoma

- Do corneal thickness testing on patients with: ocular hypertension or glaucoma
- Recognize: lower IOP = better prognosis
- Set a target pressure based on risk factors
- Prescribe therapy likely to reach the target pressure
- Monitor patients with serial visual field testing ***and*** optic nerve examination

Conclusions

- Reducing IOP can prevent, slow, and stop glaucoma
- Decision to treat in OHT based on evaluation of the risk of glaucoma vs the risks and costs of treatment
- Individualization of care necessary for setting a target IOP
  - Include corneal pachymetry

Conclusions

- The lower the IOP, the less the risk of glaucoma and field loss
  - Just 1 mm Hg additional IOP lowering can improve the prognosis
  - Multiple medications or surgery may be needed to reach target pressures
- Optimal glaucoma management:

  Treat early, treat aggressively, and, think long-term

Implementing What We Have Learned

Dr. Maj. Avinash Mishra

Choosing Glaucoma Therapy

- Efficacy = IOP lowering
  - Amount
  - Consistency
- Safety
  - Systemic side effects
- Tolerability
  - Local ocular effects

In the Real World—
What Therapy Should I Start First?

Options	Advantage	Concern
◆ **Medication**		
– **Beta-blocker**	**Tolerability**	**Safety**
– **Alpha agonist**	**Safety**	**Allergy**
– Hypotensive lipid	IOP, Safety	**Hyperemia**
◆ **Laser trabeculoplasty**	**Safety**	**Duration**
◆ **Filtration surgery**	**IOP**	**Safety**

Choosing Medical Therapy:
Monotherapy (Single Drug) Preferred

- **If a single medication can get you at or below target without side effects, what is the advantage of getting to the same place with multiple medications?**
- **Are there disadvantages of multiple drug therapy?**

Choosing Medical Therapy:

Monotherapy (Single Drop) Preferred Patient Considerations

- Convenience
  - Fewer drops to instill
  - No need to wait between instillation of multiple drops
- Less chance for mistakes
- Simple regimen enhances compliance
- Possible cost savings

Choosing Medical Therapy:

Monotherapy (Single Drug) Preferred Treating Physician Considerations

- **Fixed combinations and 2-drug regimens have combined side effects of 2 medications**
  - **1 + 1 may even be > 2**
  - **If a problem—which agent responsible?**
- **Fewer drug interactions**
- **Less preservative corneal toxicity**

Choosing Medical Therapy:

Monotherapy (Single Drug) Preferred Disease Considerations

- **>30% reductions in IOP are possible**
- **Fewer medications means fewer potential side effects**
- **If on multiple agents and efficacy is inadequate, it is much more difficult to determine the contribution of each individual medication to the total.**

Considerations in Choosing Monotherapy

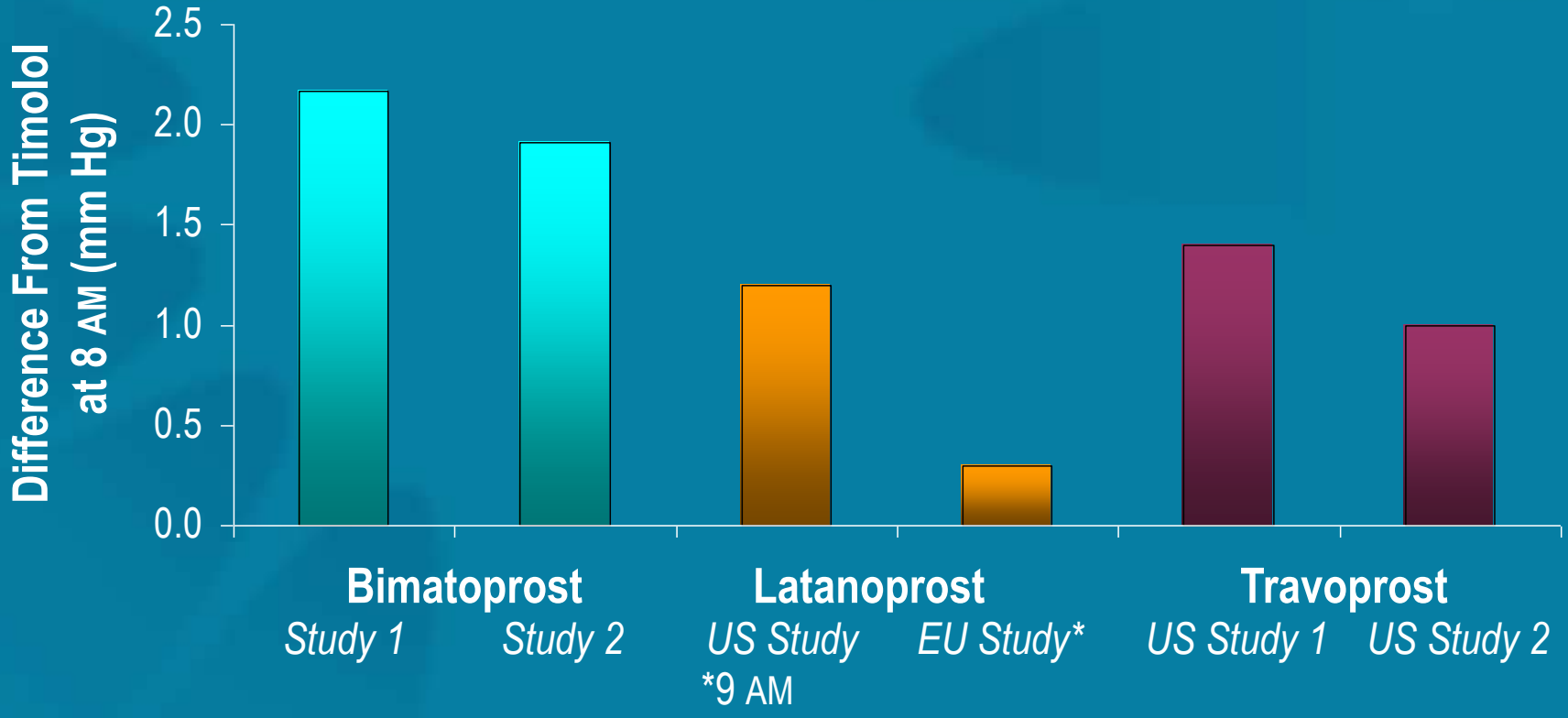
- Efficacy
  - Mean IOP drop
  - Ability to get patient to target pressure
  - Responder rate
- Safety
- Tolerability
- Convenience
- Compliance
- Cost

Once-Daily Hypotensive Lipids Lower IOP Most Effectively

Drug Class	Medication	Mean IOP Reduction*
Alpha2 adrenergic	Brimonidine BID	4-6 mm Hg
Beta-blocker, NS	Timolol BID	[~ 6 mm Hg]
Beta-blocker, Sel	Betaxolol BID	4-5 mm Hg
CAI	Dorzolamide TID	3-5 mm Hg
Combination	Timolol / dorzolamide BID	More than either alone, less than dual therapy
Once-Daily Lipids	Latanoprost QD	6-8 mm Hg
	Travoprost QD	7-8 mm Hg
	Bimatoprost QD	7-8 mm Hg

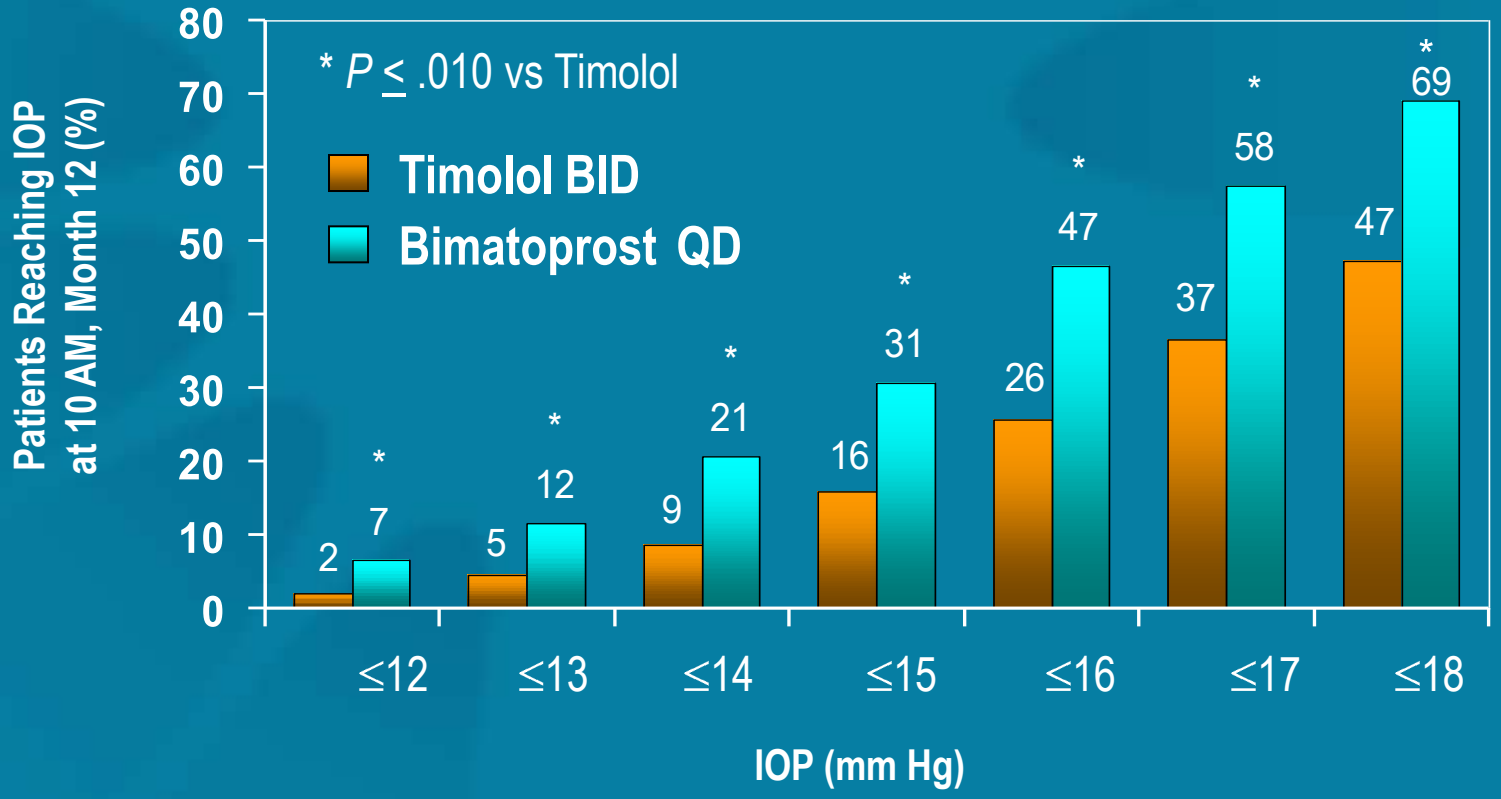
**Values given in package insert prescribing information, PDR, or from clinical trials*

Hypotensive Lipids Are Superior to Timolol in Lowering IOP



Values from FDA website
http://www.fda.gov/cder/foi/nda/index.htm

More Patients Reach Target Pressures With Bimatoprost Monotherapy



Higginbotham et al, 2002

Treatment-Related Adverse Events*

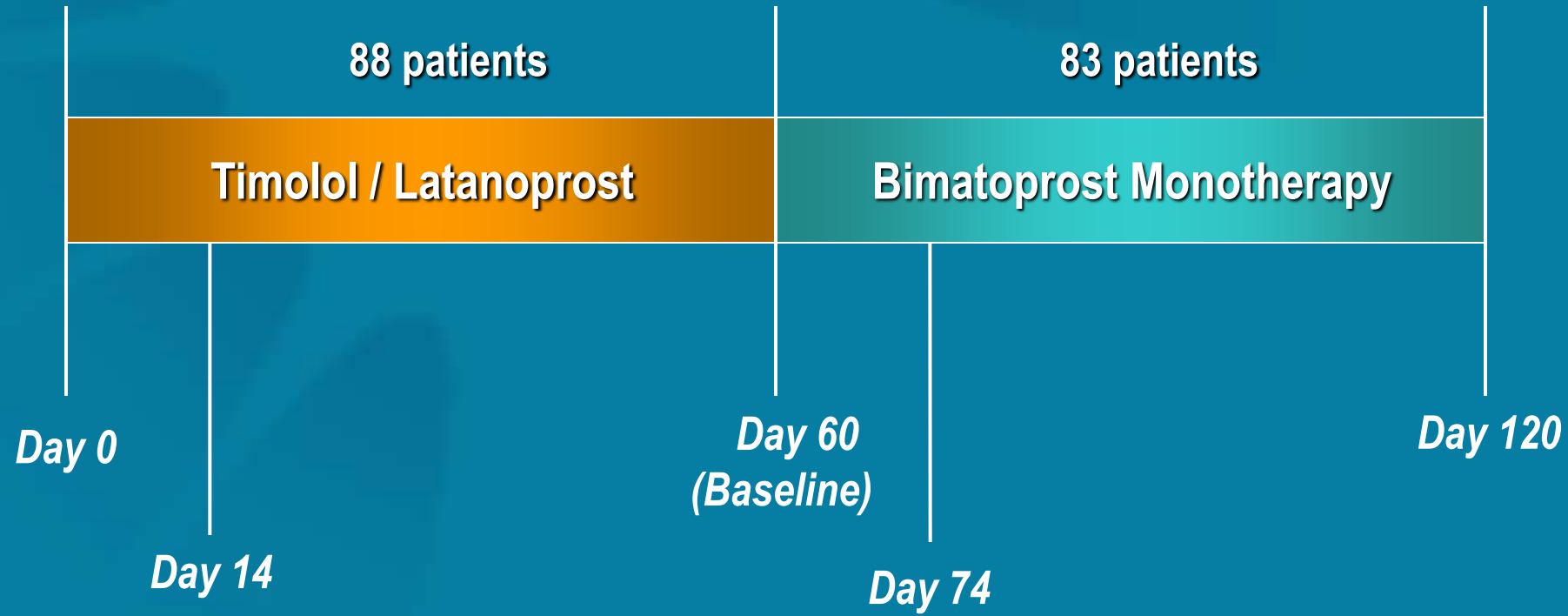
	Bimatoprost (Lumigan®)	Timolol / Dorzolamide (Cosopt®)	*P* Value
Ocular AEs			
Conjunctival hyperemia	31 (34.4%)	15 (17.2%)	0.009
Burning eye	2 (2.2%)	12 (13.8%)	0.004
Stinging eye	2 (2.2%)	9 (10.3%)	0.025
Non-ocular AEs			
Taste perversion	0 (0.0%)	5 (5.7%)	0.027

* All treatment-related AEs with incidence >5% and a significant between-group difference

Coleman et al, AAO, 2001

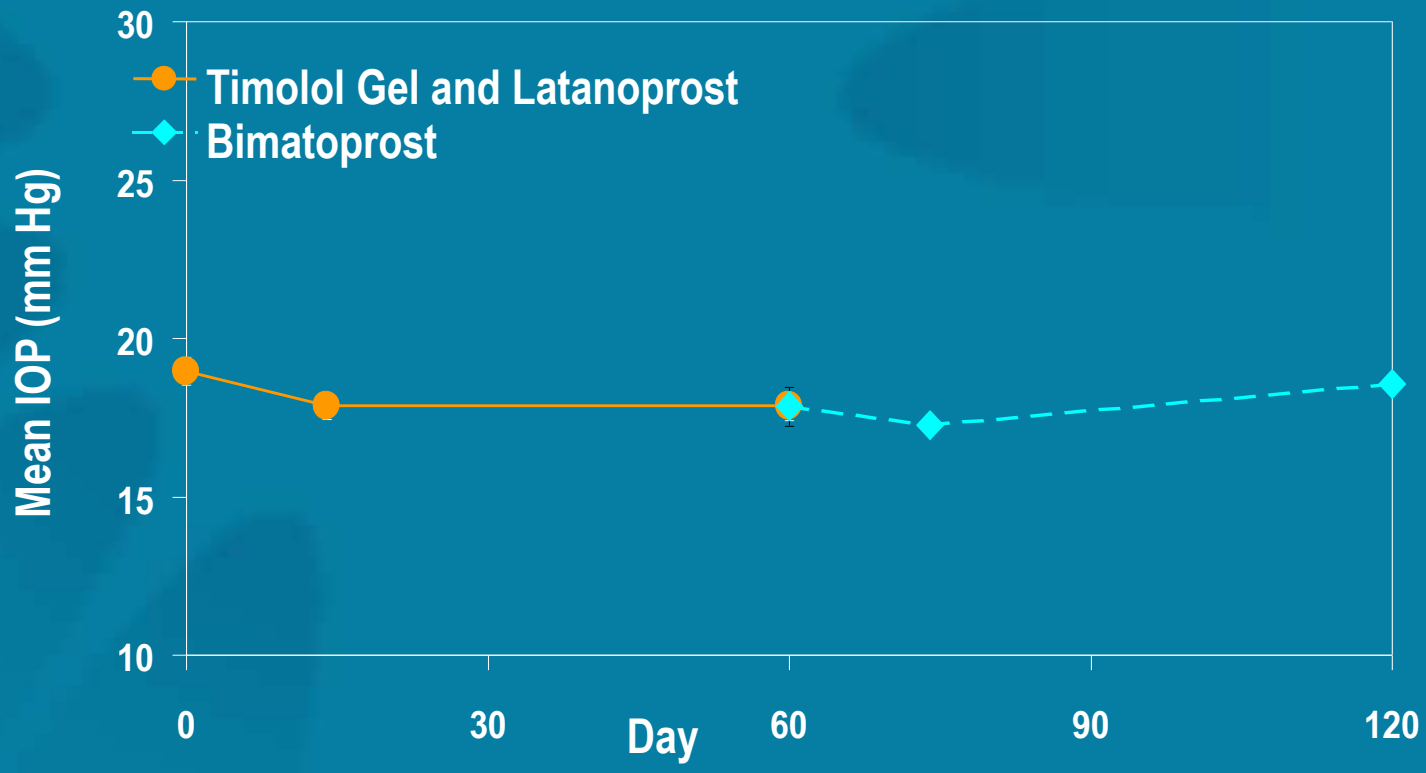
Bimatoprost Monotherapy Is as Effective as Timolol / Latanoprost

- Crossover study design
  - Patients received each regimen for 60 days



Dirks et al, AGS, 2002

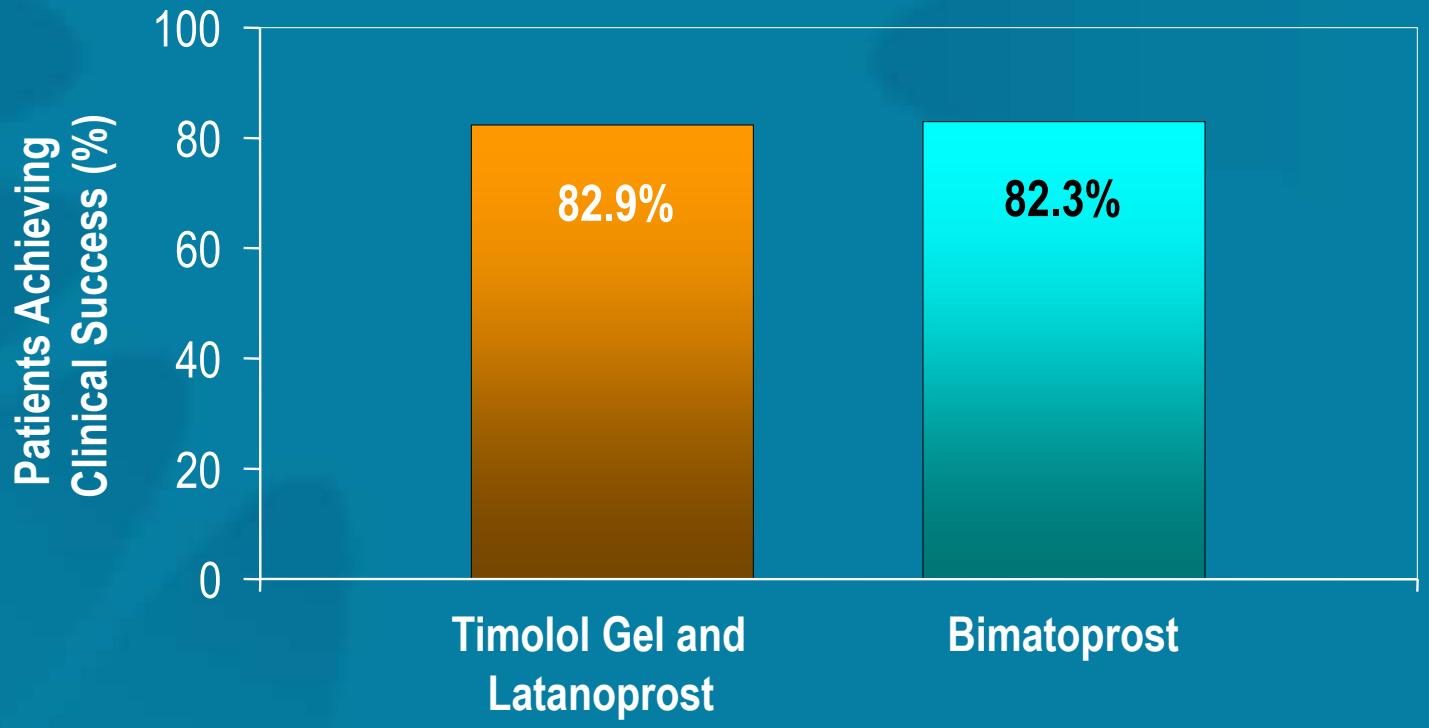
No Change in Mean IOP at 8 AM After Switching to Bimatoprost Monotherapy



* Standard Error Bars Below Resolution of Graph

Dirks et al, AGS, 2002

Equivalent Clinical Success With Bimatoprost Monotherapy and Timolol / Latanoprost



Dirks et al, AGS, 2002

Summary

- Bimatoprost monotherapy controlled IOP in most patients previously treated with timolol gel / latanoprost
- Most patients were clinically successful after switching to bimatoprost monotherapy
- Both treatments were well-tolerated
- Bimatoprost monotherapy is an effective alternative to dual therapy with timolol gel and latanoprost

Dirks et al, AGS, 2002

Safety of Hypotensive Lipids

Adverse event defined as:

- Any untoward medical occurrence – whether or not related to the use of an investigational agent
- Product label includes adverse events based predominantly on frequency of occurrence
  - Includes treatment-related and non treatment-related adverse events based on clinician's assessment
- If FDA has potential concern, information placed under "Warnings and Precautions"

Systemic Adverse Events

Bimatoprost

Infection (cold, URI)
Headache
(Abnormal LFTs)
Asthenia
Hirsutism

Latanoprost

URIs (infection / flu)
Chest pain
Angina pectoris
Muscle / joint / back pain
Rash / allergic skin reaction

Travoprost

Angina pectoris
Chest pain
Hypercholesterolemia
Bradycardia
Depression
Headache
Urinary incontinence
Prostate Disorder
UTIs
Infection, cold syndrome
Anxiety
Arthritis, back pain, pain
Dyspepsia, GI Disorder
Hypertension
Hypotension
Accidental injury
Sinusitis, bronchitis

Once-Daily Hypotensive Lipids Are Systemically Safe

- No effects on cardiorespiratory function
- Pregnancy category “C”
- Travoprost should not be used in women who are or might become pregnant

Once-Daily Hypotensive Lipids Are Well-tolerated

- Low rates of discontinuations from clinical trials due to adverse events
- Most side effects are ocular
- Common side effects:
  - Conjunctival hyperemia (trace to mild)
  - Changes in iris pigmentation
  - Eyelash changes
- Incidence of allergy is low

Conclusions

- " Good Enough" IOP control may not always be "Low Enough" to prevent disease progression
- Patients should be treated with monotherapy whenever possible
- Monotherapy with once-daily hypotensive lipids provides the best IOP lowering
  - Lowers IOP more effectively than timolol
  - Lowers IOP as effectively as combined timolol / dorzolamide
  - Allows more patients to reach low target pressures

Conclusions
(Continued)

- Patients on timolol / latanoprost can be switched to bimatoprost monotherapy with no loss in IOP-lowering efficacy
- Benefits of hypotensive lipids
  - Efficacy
  - Systemic safety
  - Once-daily convenient dosing

Achieving the New Targets Set by These Trials

Dr. Rahul Shukla

Evolution in the Medical Treatment of Glaucoma in India

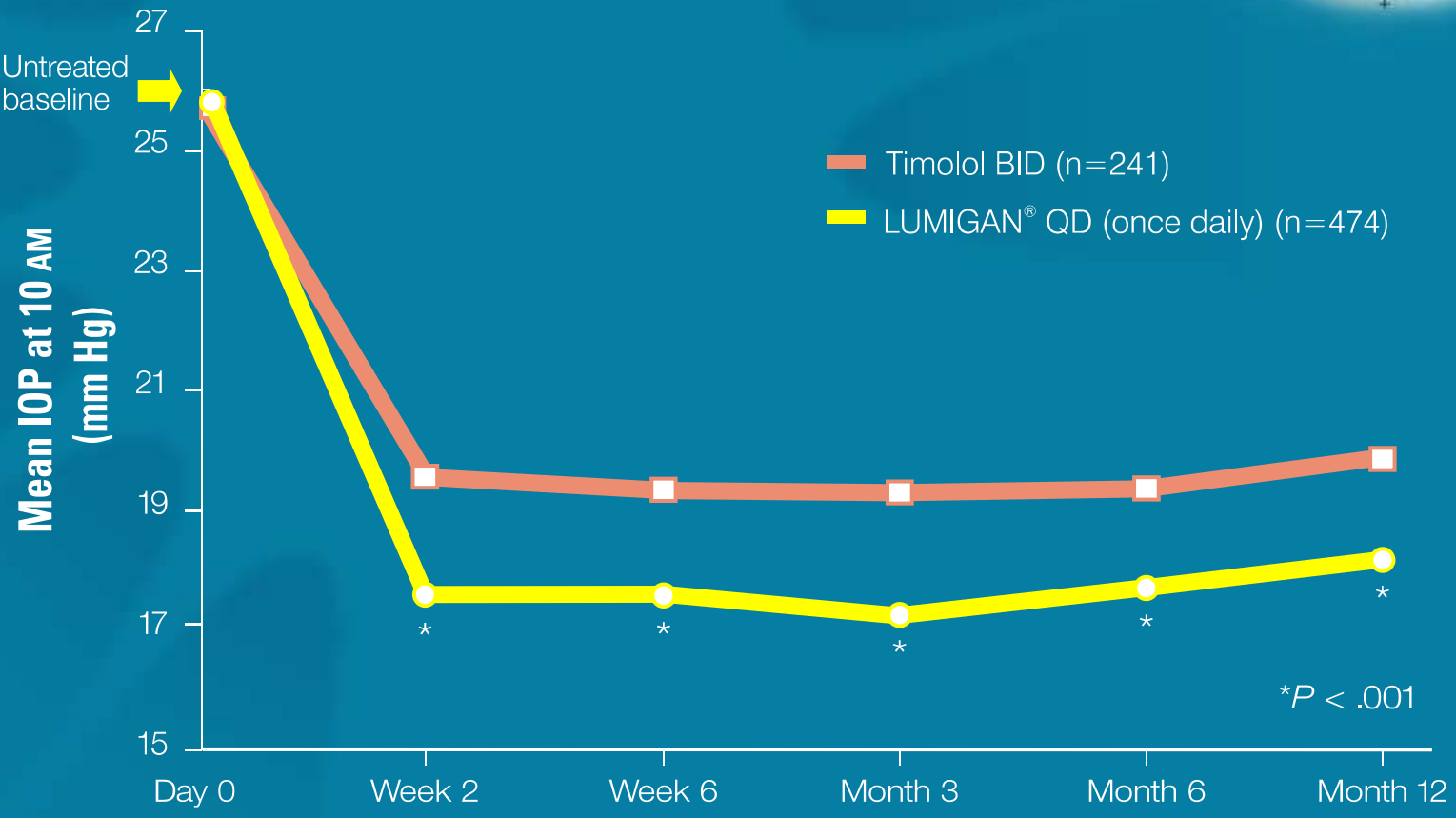
- Timolol still remains the mainstay because of cost considerations
- Pilocarpine gradually getting replaced with Brimonidine after price revisions by major brands
- Bimatoprost and Latanoprost still considered “Expensive”, however tertiary Institutes and leading Consultants consider them as preferred option to surgery

Beta Blockers Some Limitations

- May not achieve target pressures in many patients
- Efficacy at night is not proven , hence may not help prevent early morning Spikes.
- Not desirable in patients with COPD, Hypertension, Diabetes, Depression , hyperlipidemia etc

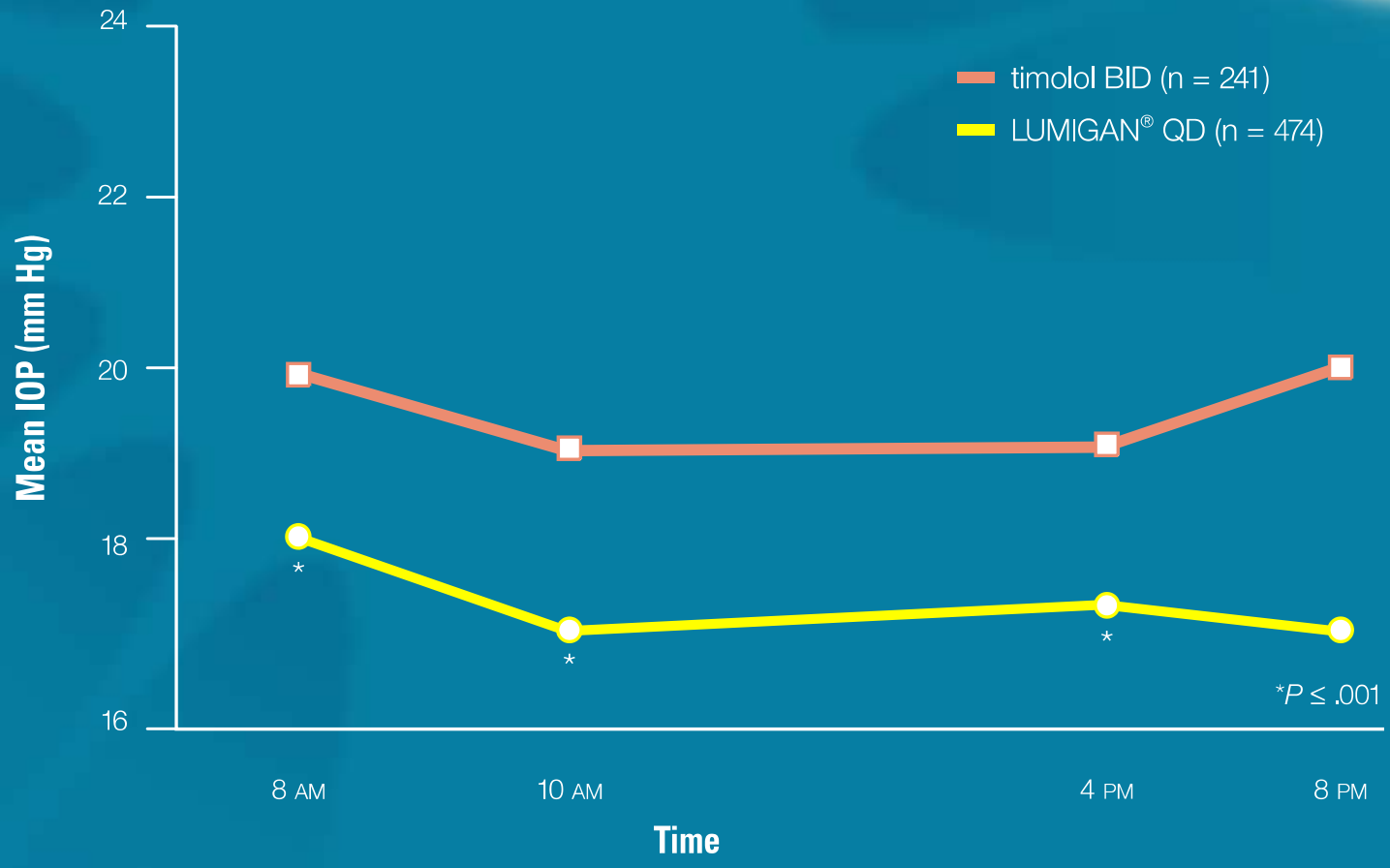
Timolol Vs Bimatoprost

LUMIGAN offers superior IOP lowering efficacy



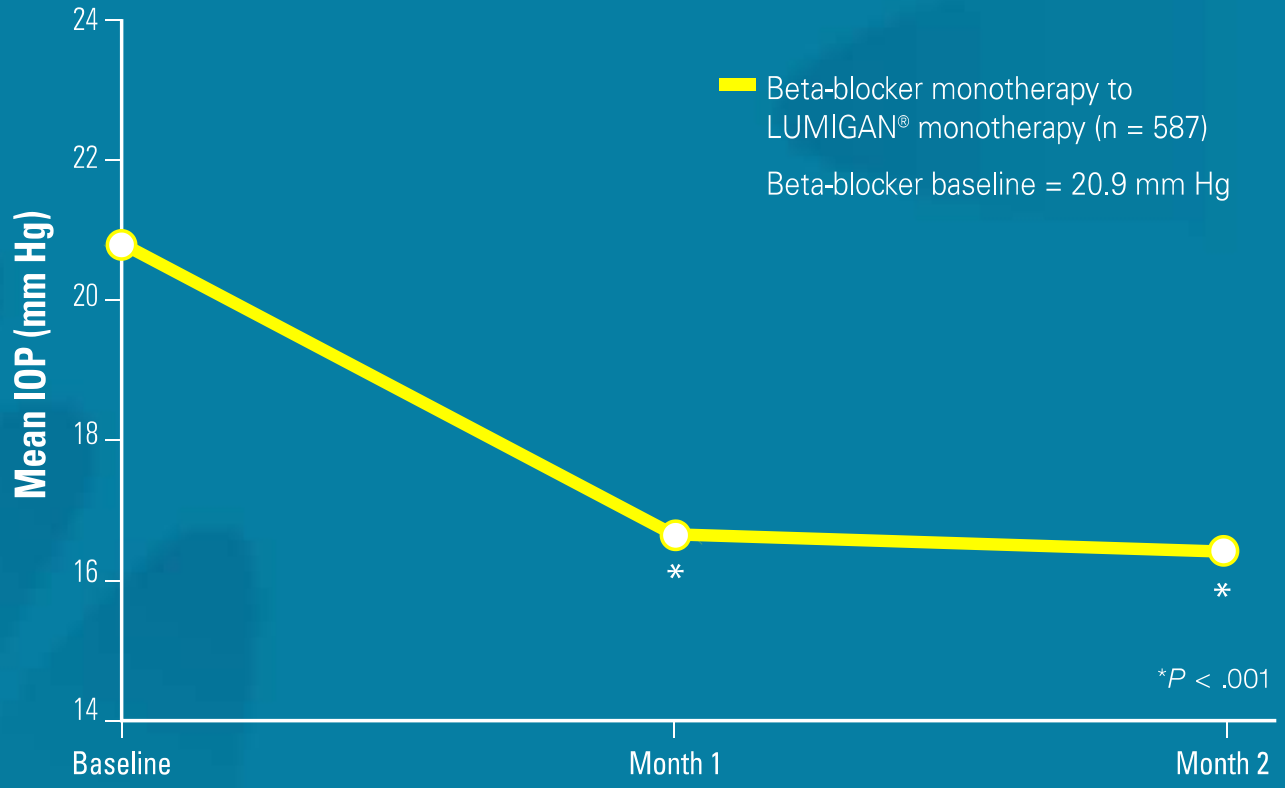
Timolol Vs Bimatoprost

Lumigan offers superior diurnal control



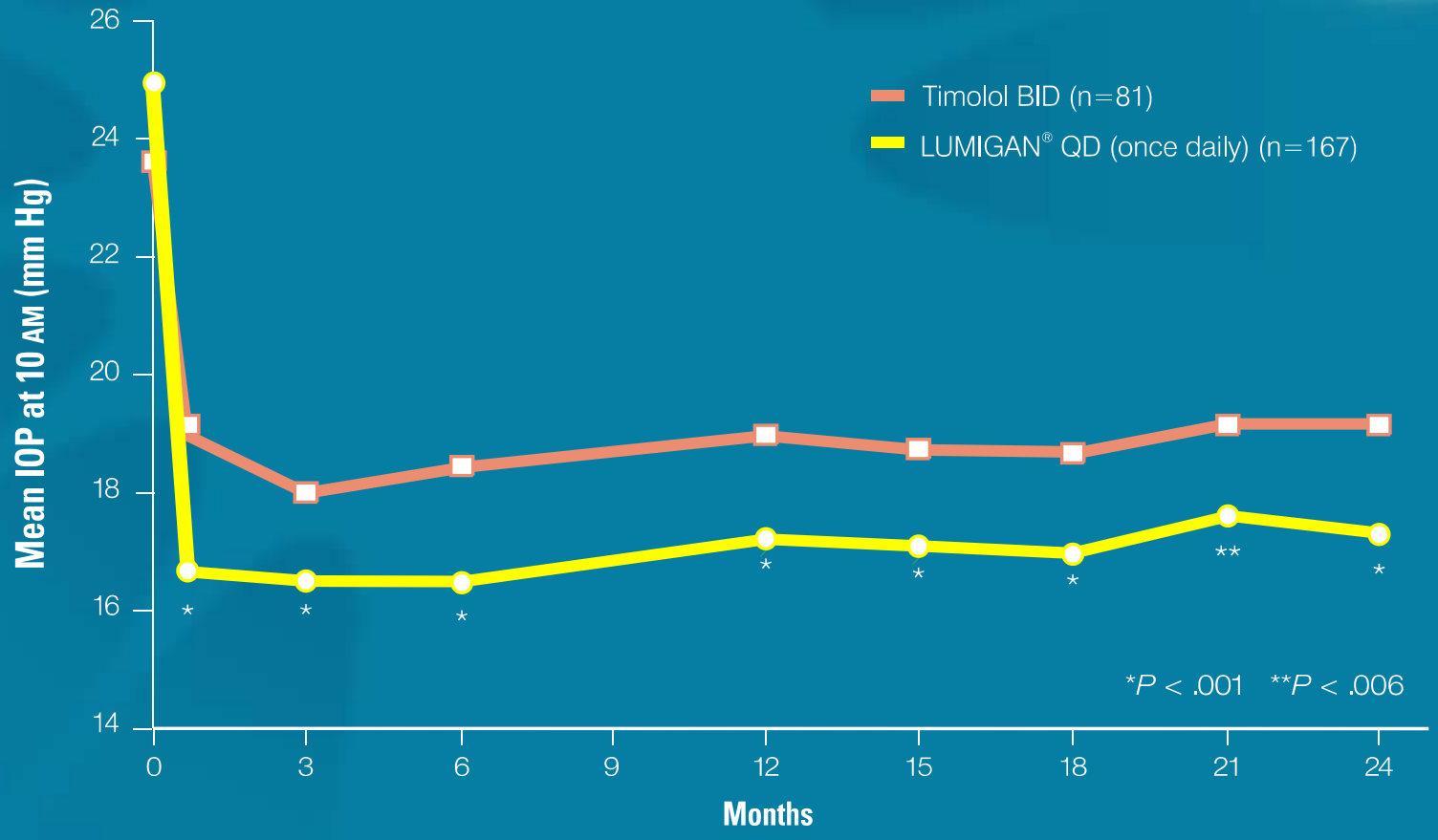
Timolol Vs Bimatoprost

Replace timolol with Lumigan for more IOP reduction



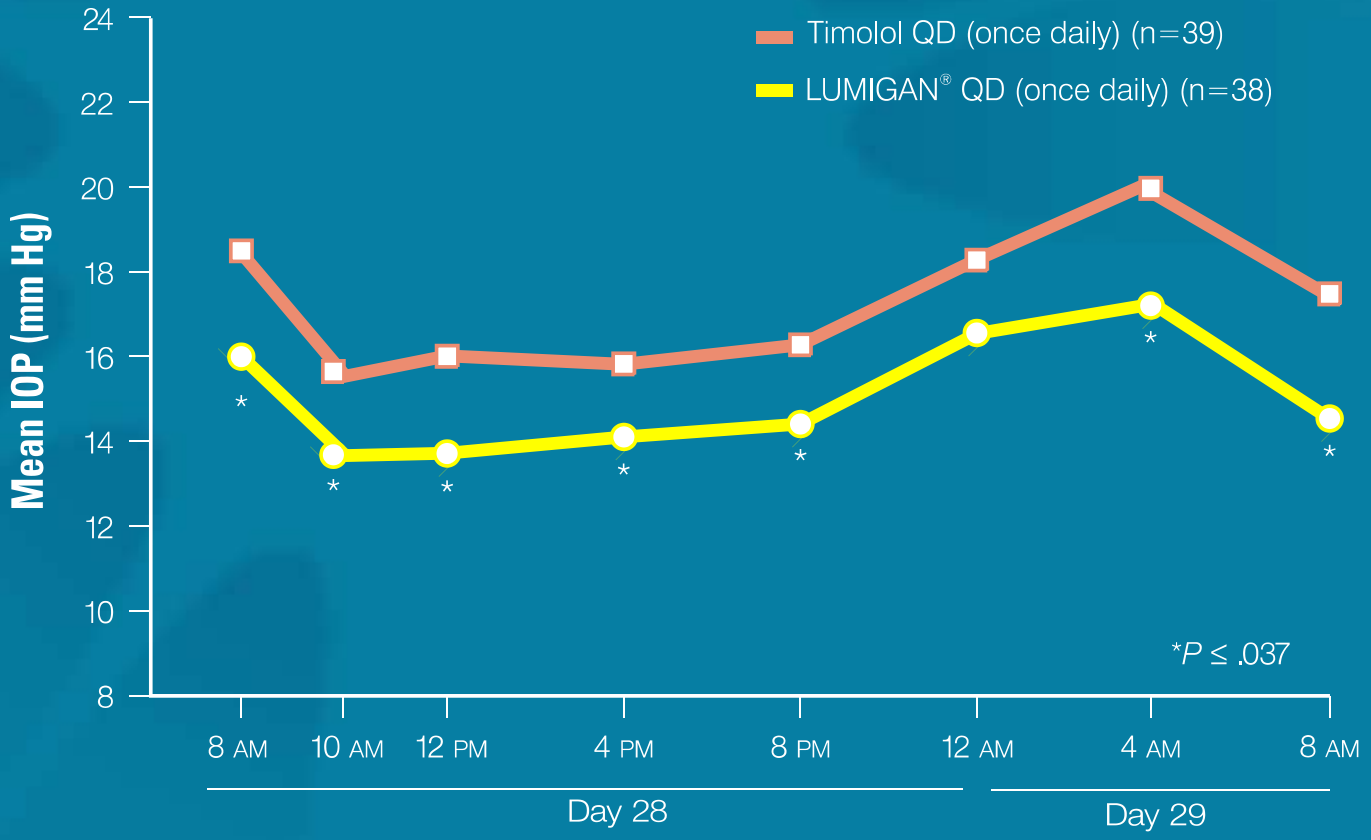
Timolol Vs Bimatoprost

Lumigan efficacy maintained for over 2 years



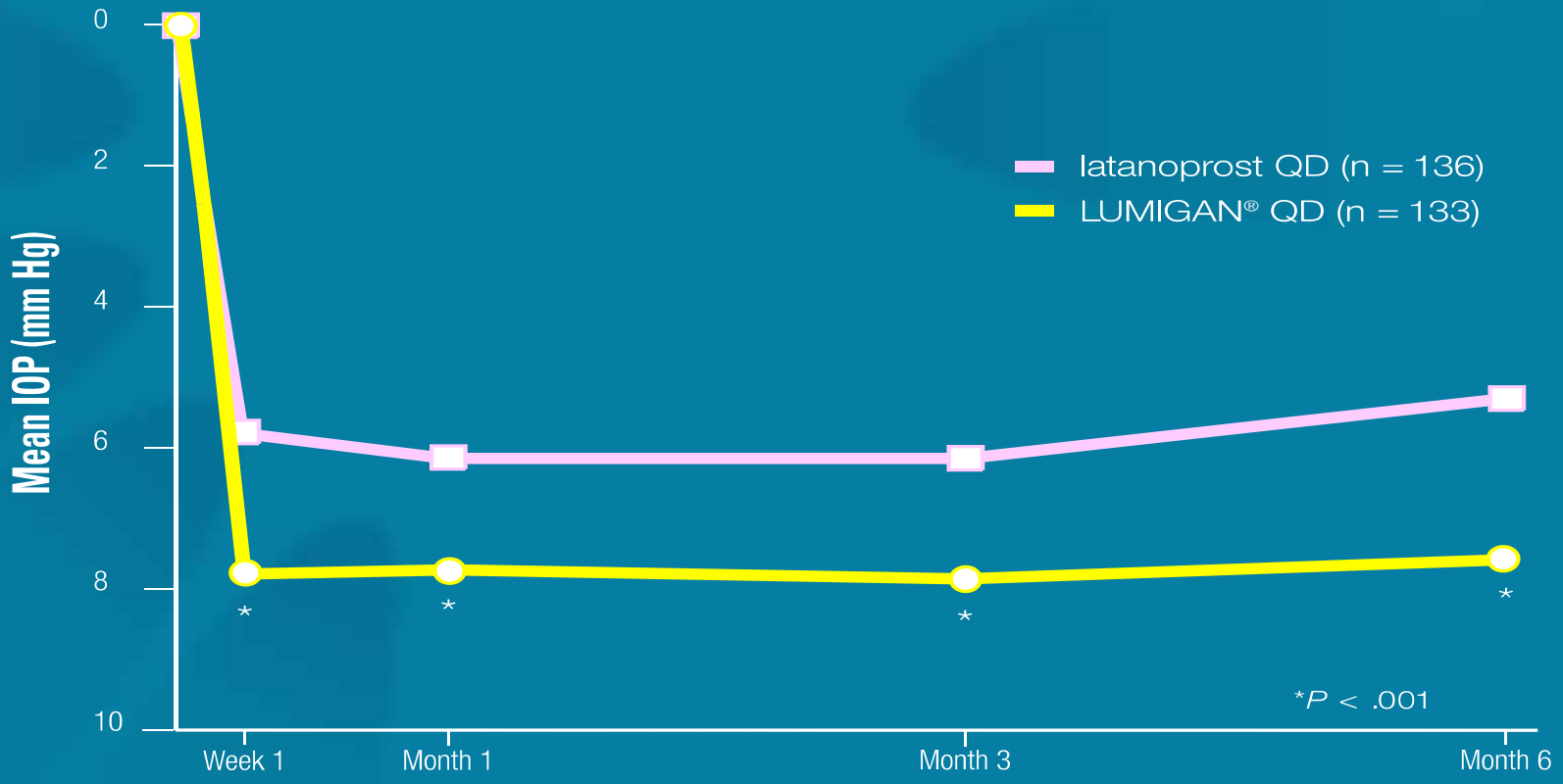
Timolol Vs Bimatoprost

Lumigan achieves superior IOP reduction to Timolol over 24 hours



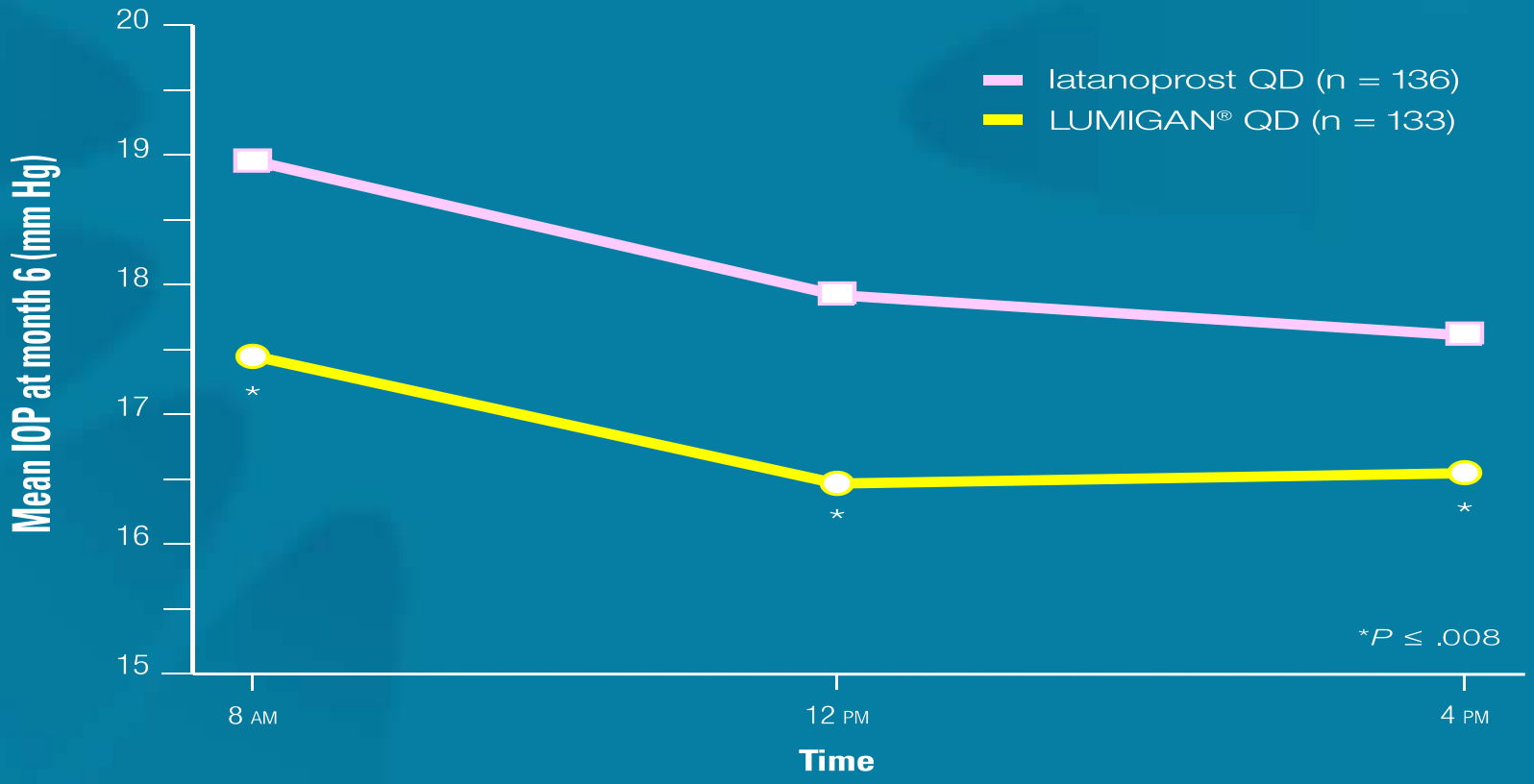
Latanoprost Vs Bimatoprost

Lumigan® demonstrates IOP reduction Vs Latanoprost



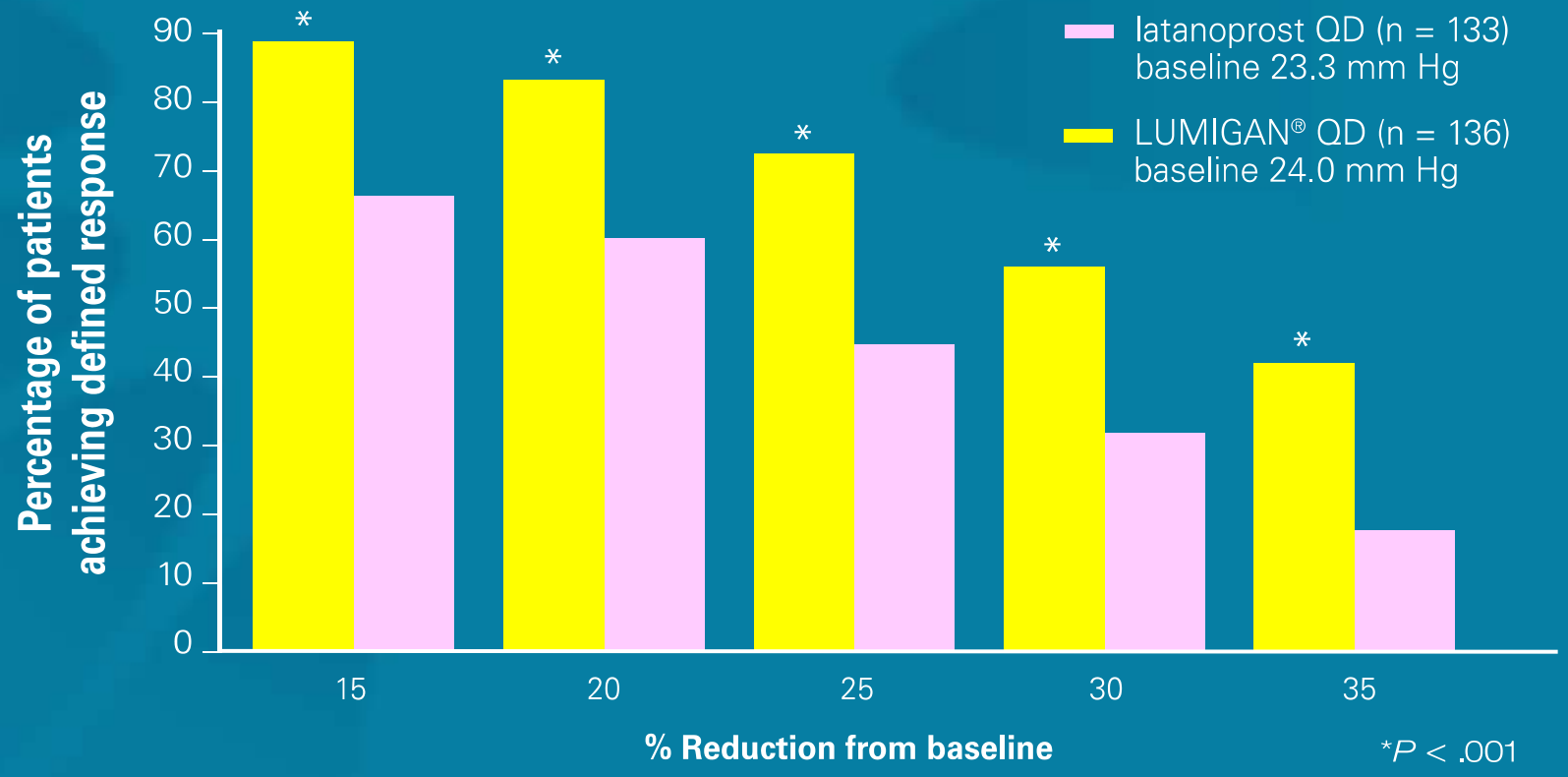
Latanoprost Vs Bimatoprost

Lumigan® demonstrates diurnal control Vs Latanoprost



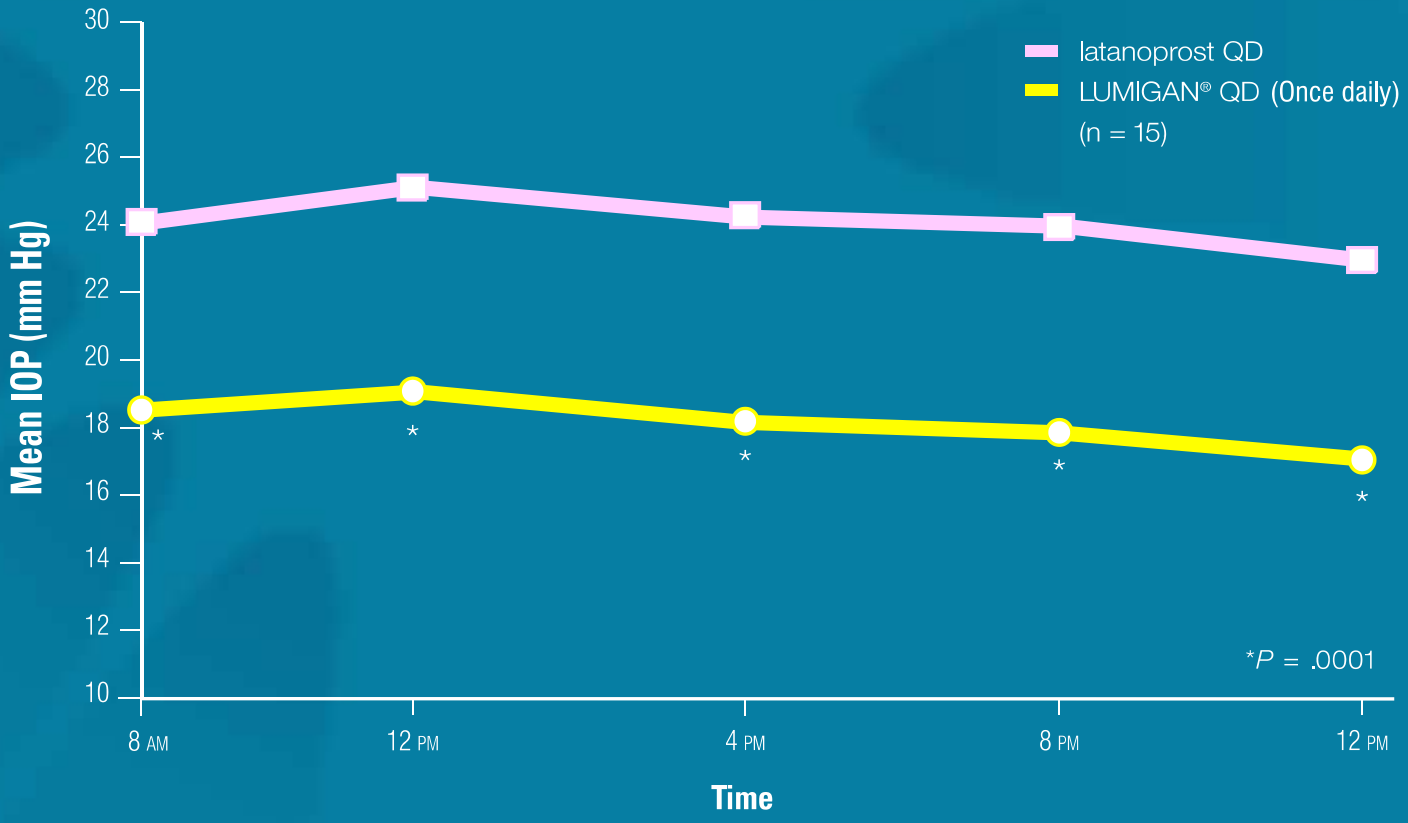
Latanoprost Vs Bimatoprost

Lumigan® demonstrates better response rate Vs Latanoprost



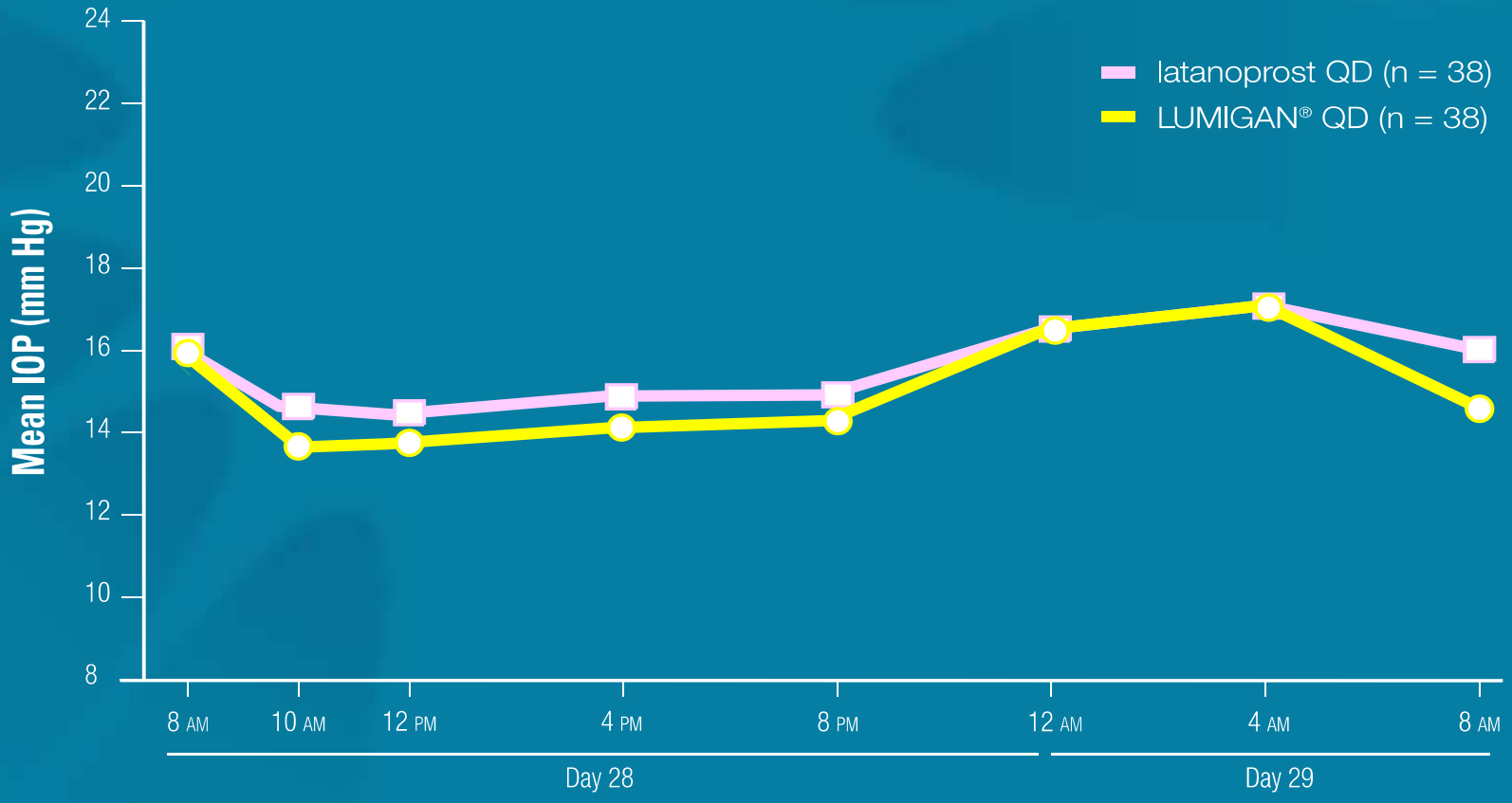
Latonoprost Vs Bimatoprost

Switch Latanoprost non-responder to Lumigan®



Latanoprost Vs Bimatoprost

Lumigan® demonstrates IOP reduction Vs Latanoprost over 24 hours



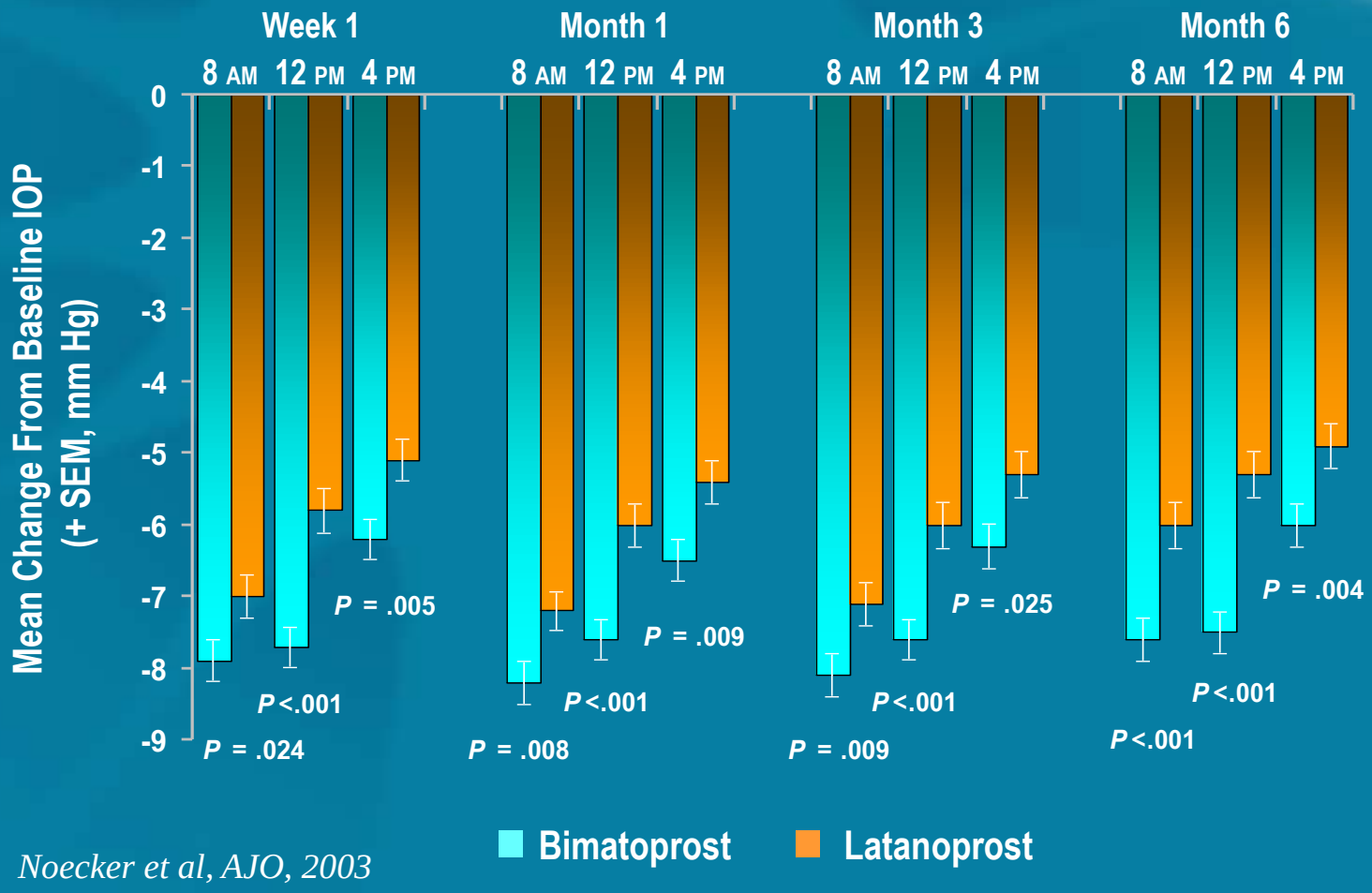
Bimatoprost Monotherapy Lowers IOP More Effectively Than Latanoprost:

A 6-Month Randomized Clinical Trial

- Multicenter, randomized, investigator-masked trial
- Adult patients with OHT or chronic glaucoma
- Treatment groups:
  - Bimatoprost 0.03% qPM, n = 133
  - Latanoprost 0.005% qPM, n = 136
- Efficacy outcome measures:
  - Mean change from diurnal baseline IOP (1° endpoint)
  - Mean IOP
  - Percentage of patients reaching
    - Specific target pressures
    - 15% and 20% reductions in IOP

Noecker et al, AJO, 2003

Significantly Greater Mean IOP Reductions With Bimatoprost at All Time Points



Noecker et al, AJO, 2003

Bimatoprost Superior to Latanoprost in Primary Endpoint:

Mean Change From Baseline IOP

- Bimatoprost superior to latanoprost at every time point, every visit
- All differences statistically significant
- Difference between groups ranged from 1.2 mm Hg to 2.2 mm Hg in diurnal measurements at month 6

Noecker et al, AJO, 2003

Efficacy of Latanoprost Consistent With Reported Literature Values

- IOP reduction from baseline at 8 AM:
  7.1 mm Hg at month 3 and 6.0 mm Hg at month 6
- Similar to morning IOP reduction measured in other studies:
  - 5.5 mm Hg at month 3 and 6.0 mm Hg at month 6 (Suzuki et al, 2000)
  - 6.2 mm Hg at month 3 (Mishima et al, 1996)

Bimatoprost Also Superior to Latanoprost in All Other Efficacy Measures

- Mean IOP
  - Significantly lower with bimatoprost at all 3 diurnal measurements at all 4 follow-up visits
- Percentage of patients reaching specific target pressures
  - Significantly more bimatoprost patients reached low target pressures at all time points at month 6
- Responder rates
  - Significantly more bimatoprost patients responded to treatment with = 15% and = 20% reductions in IOP

Noecker et al, AJO, 2003

Favorable Safety Outcomes With Both Medications

- Both drugs were well-tolerated
- No treatment-related, serious AEs
- Most common side effects:
  - Hyperemia (bimatoprost 44.4%; latanoprost 20.6%)
  - Eyelash growth (bimatoprost 10.5%; latanoprost 0.0%)
- Similar rate of discontinuations due to AEs
  - Bimatoprost: 4.5% overall, 2.3% for hyperemia
  - Latanoprost: 3.7% overall, 0.0% for hyperemia
- Uveitis: 1 patient in latanoprost group; no CME

Noecker et al, AJO, 2002

Bimatoprost Is Consistently Better Than Latanoprost in Lowering IOP

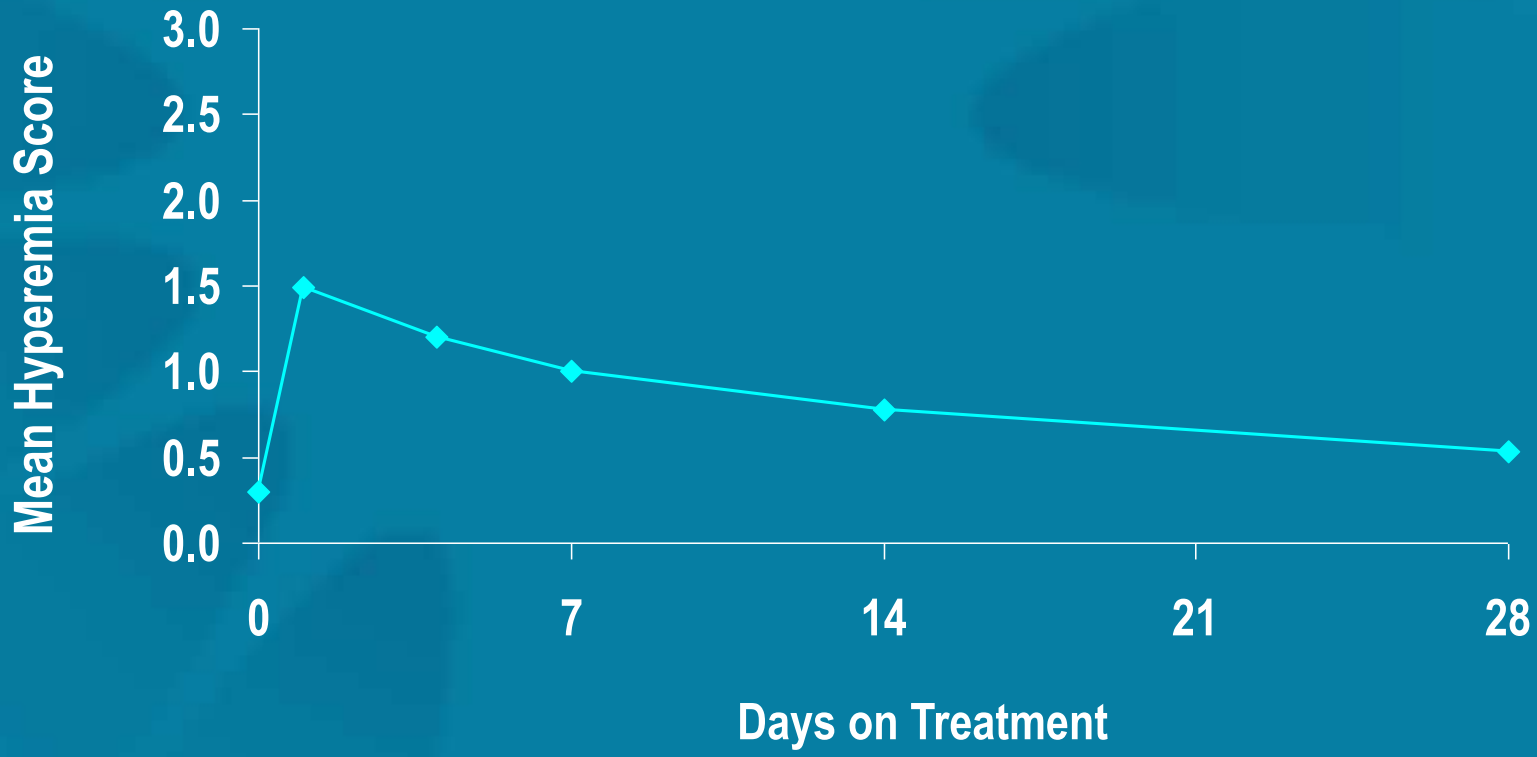
- 3 published head-to-head trials (1-month, 3-month, 6-month) with IOP follow-up measurements at 24 time points
- Mean IOP lower with bimatoprost at 22 time points, tied at 2 time points, NEVER lower with latanoprost
- Mean IOP reductions greater with bimatoprost at 23 time points, tied at 1 time point, NEVER greater with latanoprost

Primary Therapy Comparison:
Bimatoprost vs Latanoprost

- **Bimatoprost lowers IOP 1-2 mm Hg more than latanoprost**
- **The incidence of hyperemia is approximately twice as high with bimatoprost**

Noecker et al, AJO, 2002

Mean Hyperemia Scores With Bimatoprost



Abelson et al, In press

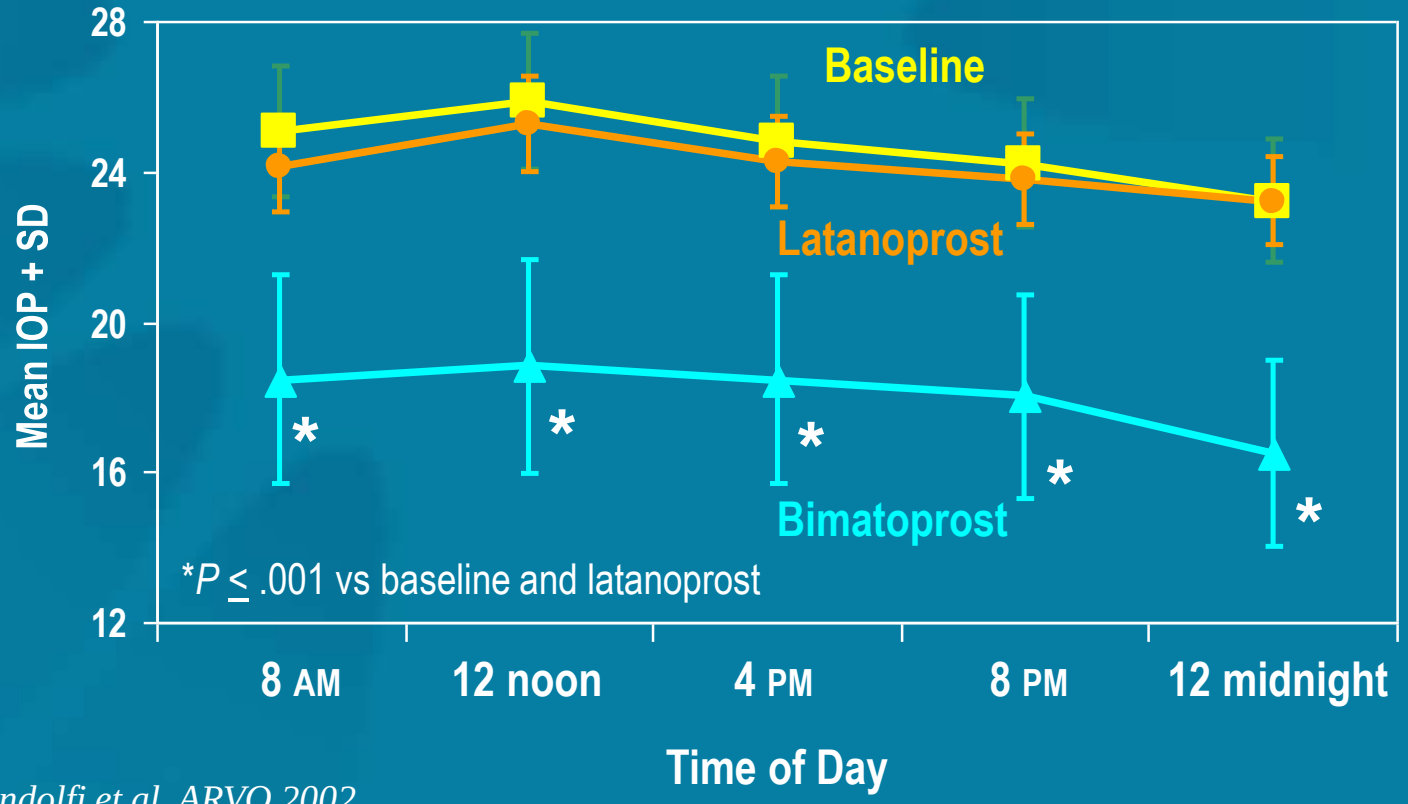
Respective Phase III Trial Results:

Lower Incidence of Iris Pigmentation Changes With Bimatoprost

- **Increased iris pigmentation reported for 16.1% of patients treated with latanoprost QD for 1 year**
- **Increased iris pigmentation reported for only 1.5% of patients treated with bimatoprost QD for 1 year**
  - **No new reports of iris pigmentation during the second year of bimatoprost treatment**

Bimatoprost Reduced Mean IOP in Latanoprost Nonresponders

- 66% of IOP measurements were ≤ 18 mm Hg on bimatoprost



Gandolfi et al, ARVO 2002

Most Latanoprost Nonresponders Responded to Bimatoprost

	Responders	Nonresponders	*P* value
Bimatoprost	13	2	< .001
Latanoprost	0	15	

Definition of Responder: ≥ 20% IOP Reduction

Gandolfi et al, ARVO 2002

Relative Disadvantages of the Hypotensive Lipids

- Change in iris pigmentation
- Eyelash changes
- Hyperemia
- Eyelid skin darkening
- Macular edema in susceptible patients?
- Exacerbation of uveitis?
- Exacerbation of herpetic keratitis?
- Expense

Primary Advantage of the Lipids: Efficacy

- Excellent, sustained IOP lowering
  - 30%-35% reduction in IOP
  - Greater efficacy than nonselective beta-blockers
    - Effective in the black population, which shows reduced responsiveness to some therapies
  - As monotherapy, lower IOP as effectively as combinations of other drug classes
  - Flat diurnal curves
  - No known tachyphylaxis

Other Advantages of Lipids

- Convenient, once-daily drugs
- Side effects mostly local
  - Tolerability rather than safety issues
  - Contrasts with serious systemic effects of beta-blockers
- Low incidence of topical allergies
- Mechanism of action
  - Enhance outflow to counteract physiological deficit that causes high IOP

Pros and Cons of Bimatoprost as First-Line Therapy

- Important to maximize efficacy to reduce the risk of progression
- Bimatoprost lowers IOP better than all other medications
  - Bimatoprost is as great an improvement over latanoprost as latanoprost was to timolol
  - Best chance of getting patient to target IOP
- Conjunctival hyperemia is more common with bimatoprost than latanoprost

Manage Tolerability to Maximize Efficacy

- Safety is an issue for the physician, but tolerability will ultimately be decided by the patient
- The physician can have a large influence on how the patient views tolerability issues
- Patient education is key:
  - Side effects of treatment should be weighed against possible loss of visual function
  - Side effects that are expected and transient may be best tolerated

Conclusions

- Hypotensive lipids should be used as first-line therapy for glaucoma
- Bimatoprost patients are more apt to reach low target pressures with bimatoprost than with latanoprost
- Many patients who fail to respond adequately to latanoprost may be successfully switched to bimatoprost
- Tolerability issues with the lipid agents can be addressed with patient education

Reaching the Difficult Target Pressures

Dr. Rahul Shukla

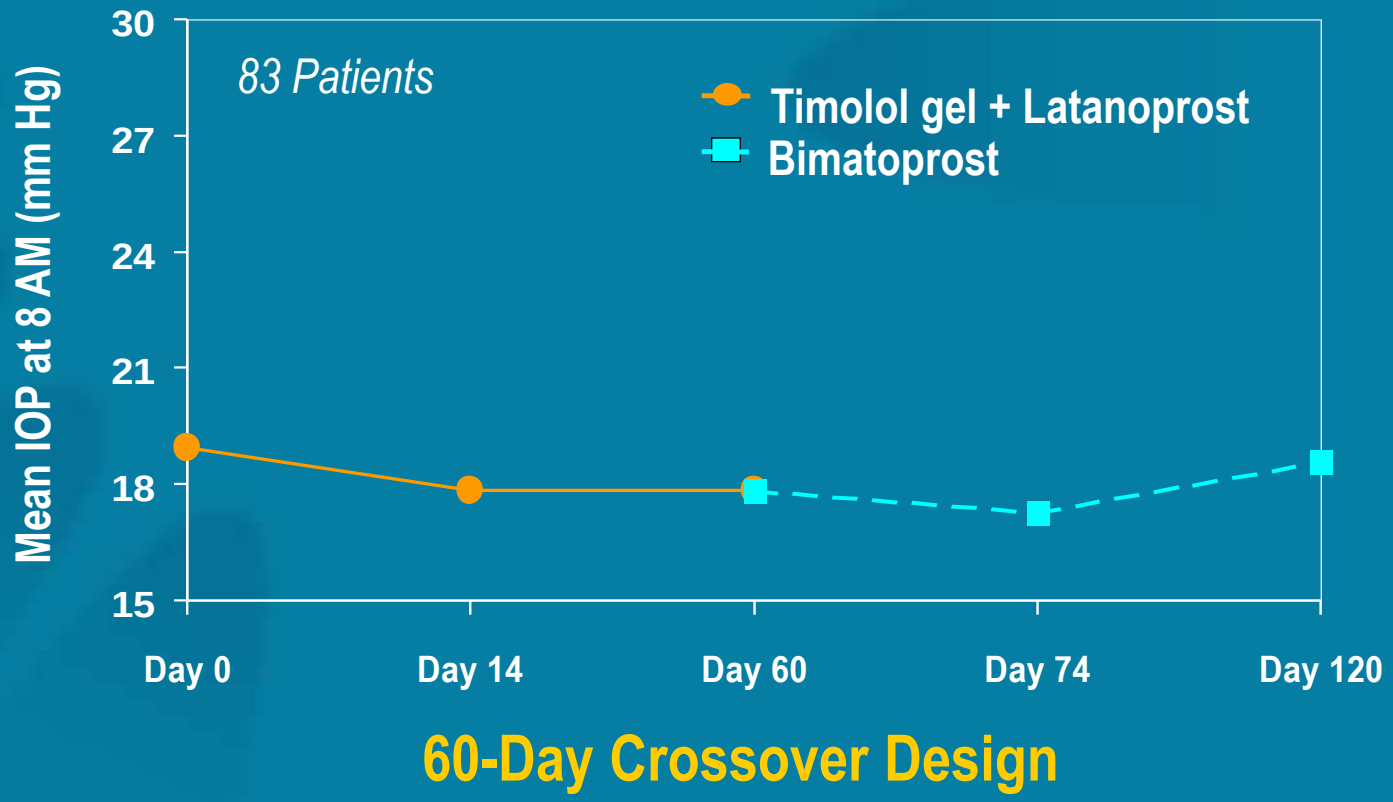
Goal: Reach Target Pressure

- **Goal to reach target on initial monotherapy**
- **If target not reached, choices:**
  - **Switch to more effective primary therapy**
  - **Add another medication**

Benefits of Replacement Therapy

- Single medication preferable to using multiple medications
  - Safety, tolerability, compliance
- Eliminate medications no longer effective
  - Reverse therapeutic trial
    - One-eye trial
    - Stop medication weeks prior to next scheduled visit
    - Easy way to determine whether medication still effective

Bimatoprost Monotherapy in Patients Previously on Dual Timolol/Latanoprost



60-Day Crossover Design

Dirks et al, AGS, 2002

Lumigan Indian Experience

The India Lumigan Early Experience Data (L.E.E.D.) Study Group

Dr. Shabbir Hussain

Data on file Allergan India Pvt. Ltd.

Objective and Trial Design

- To evaluate the response to Bimatoprost in “real-life” clinical practices
- Open-label, 2-month surveillance trial
  - In glaucoma or ocular hypertension patients who need additional IOP lowering, or who are intolerant of other medications
  - Bimatoprost was used as monotherapy, replacement therapy or adjunctive therapy at physicians’ discretion

Data on file Allergan India Pvt. Ltd.

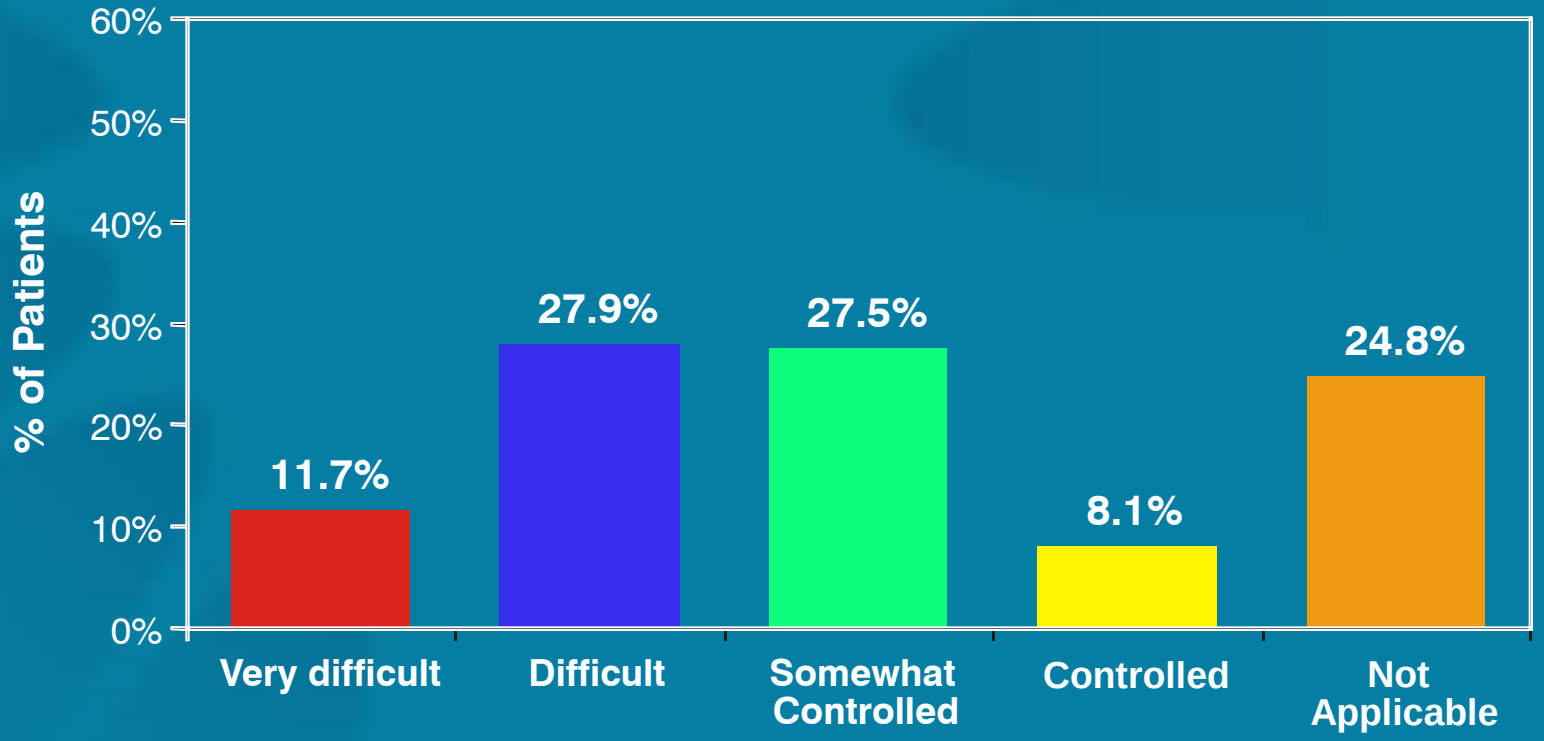
Patient Population

- 571 patients from 72 clinical sites in India
  - 6.4 % lost to follow-up
- 74.2 % equal to or older than 50
- 38.5 % female and 61.5 % Male
- 97.6 % Asian
- 90.2% with open-angle glaucoma and 9.8% with ocular hypertension

Data on file Allergan India Pvt. Ltd.

Baseline Characteristics

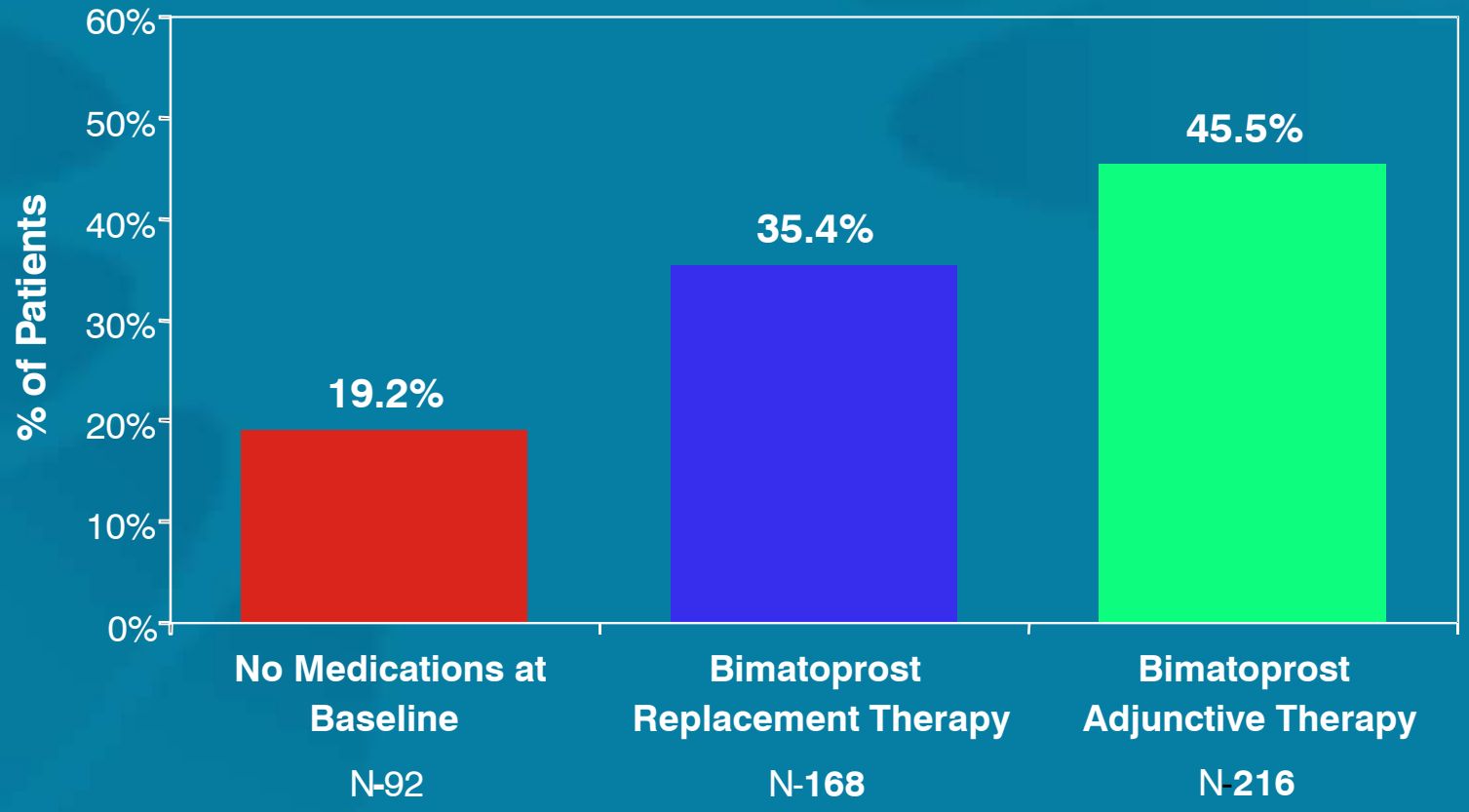
Based on "Difficulty to Control"



(n=444- All patients who completed atleast one follow-up)

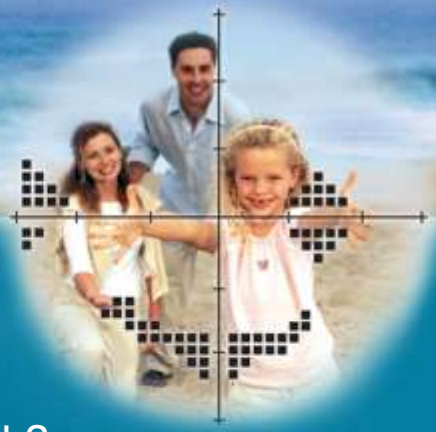
Data on file Allergan India Pvt. Ltd.

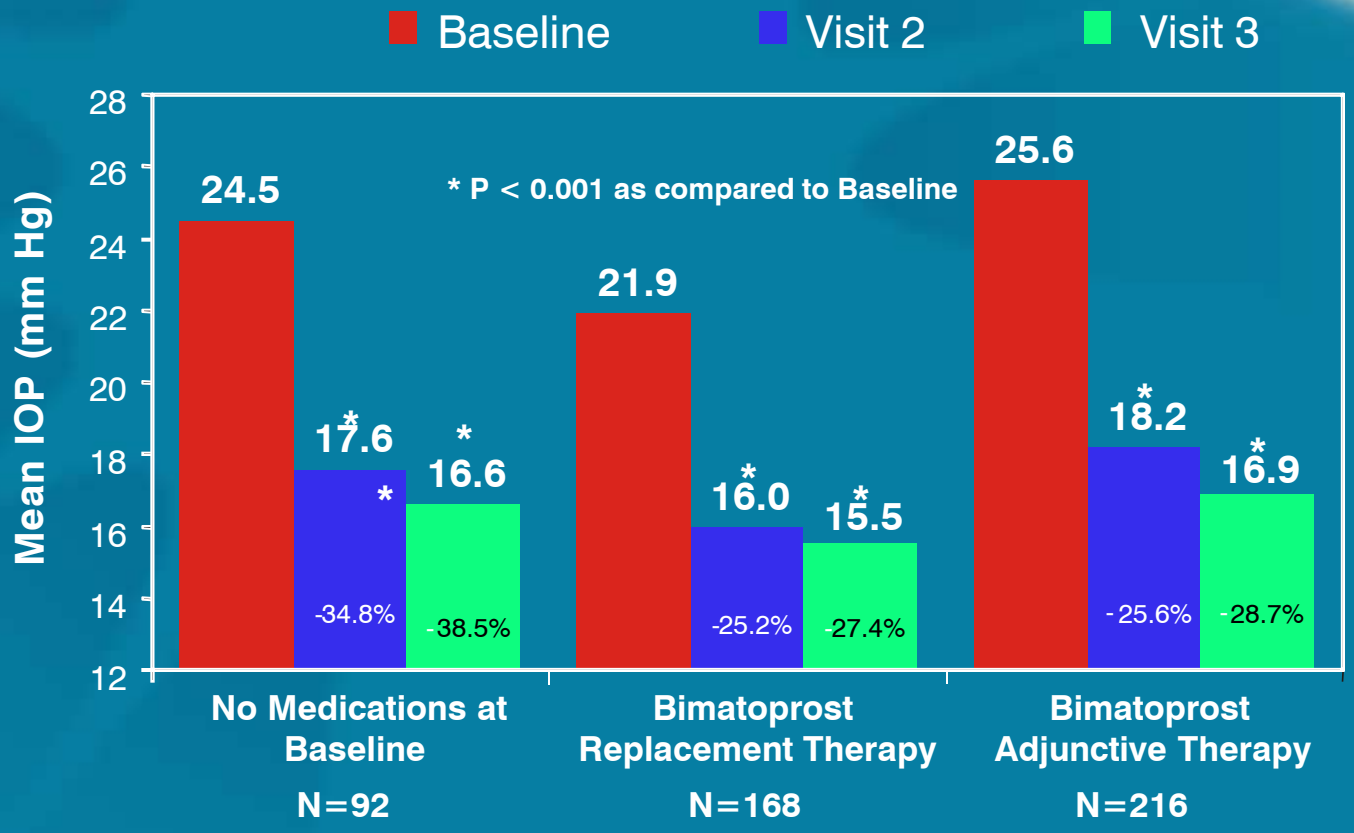
Medications at Baseline and During Study



Data on file Allergan India Pvt. Ltd.

Lumigan lowers IOP as first-line, replacement & adjunctive therapy

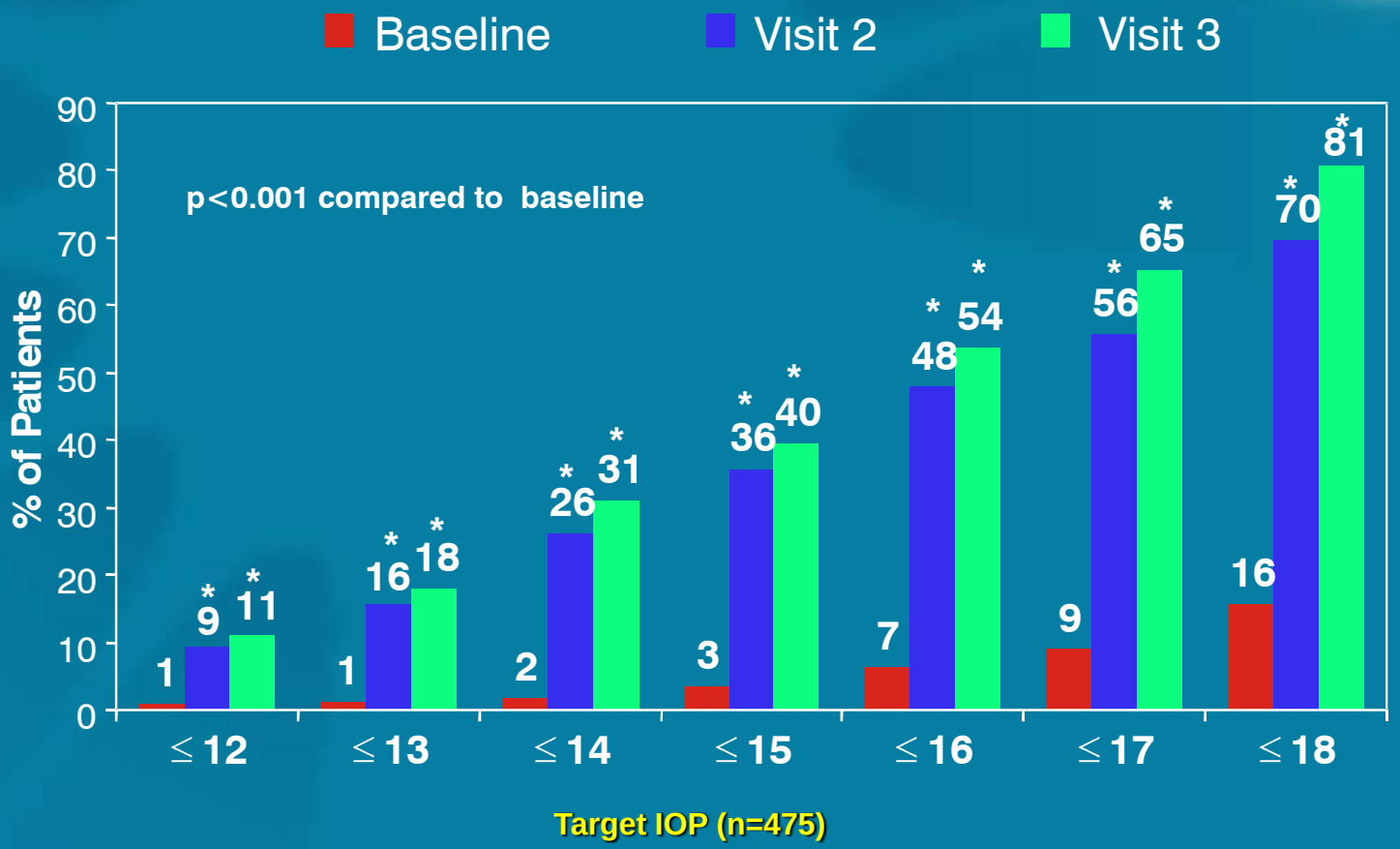




Overall Mean IOP Patients who completed atleast One follow-up

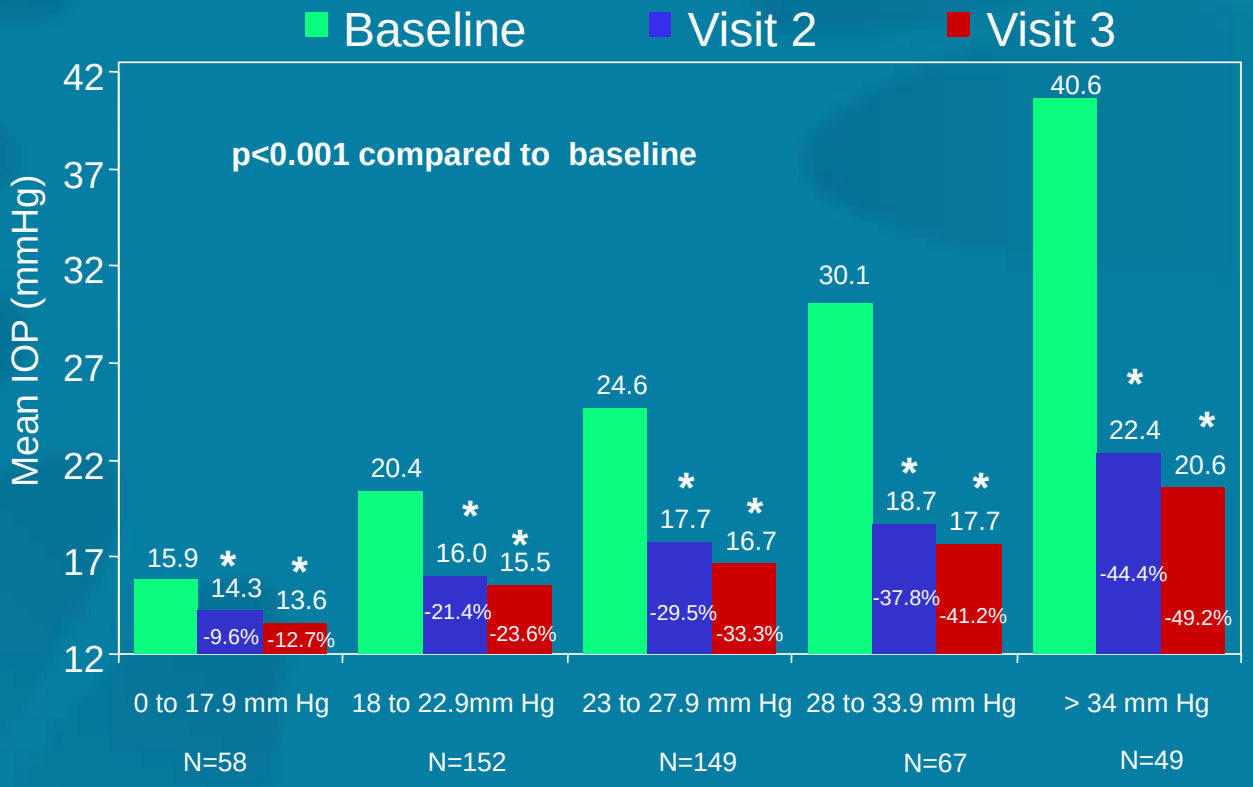
Data on file Allergan India Pvt. Ltd.

Lumigan enables more patients to reach Target IOPs



Data on file Allergan India Pvt. Ltd.

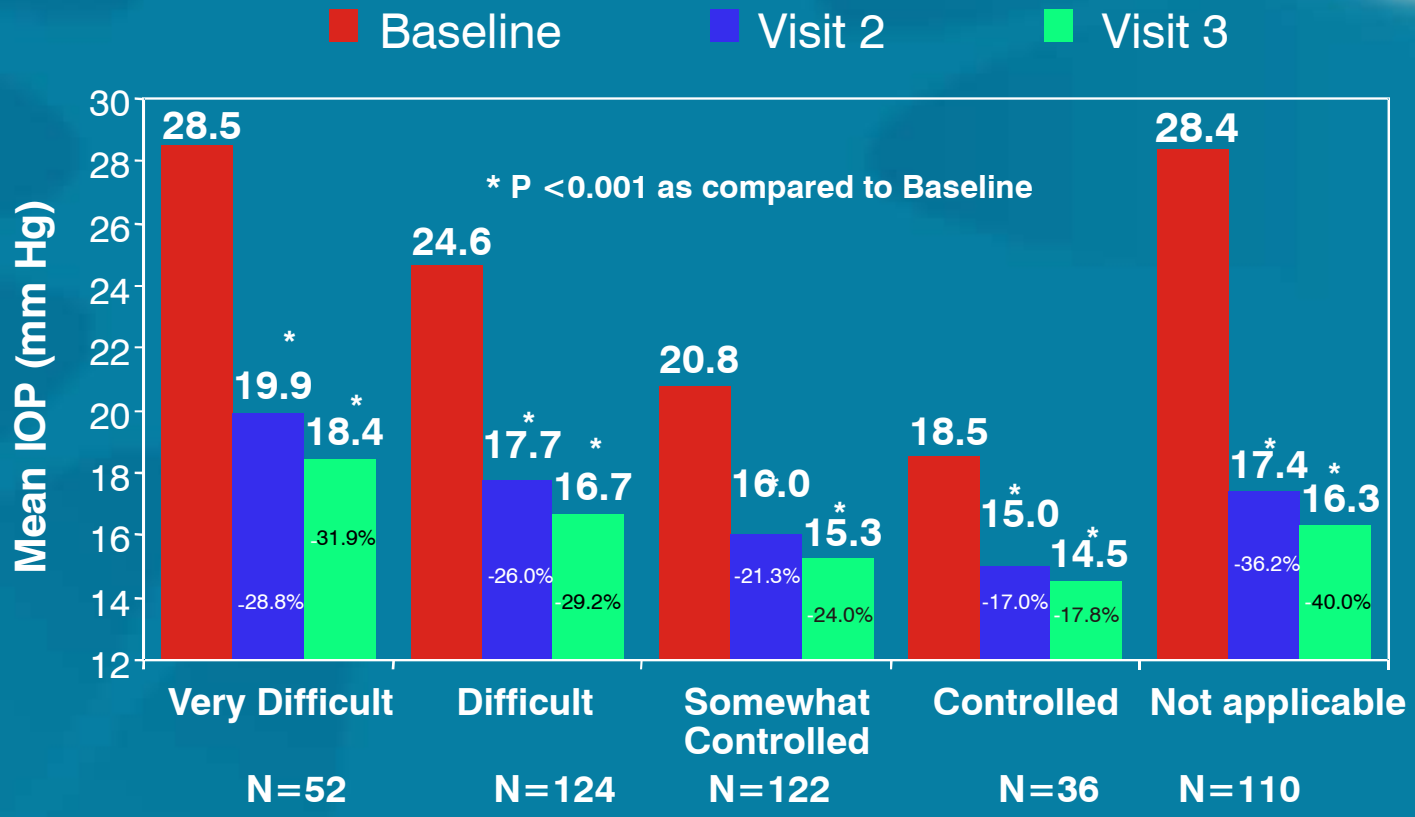
Lumigan brings about significant IOP reduction irrespective of the base line



Mean IOP by Baseline IOP Patients who completed atleast one visit considered

Data on file Allergan India Pvt. Ltd.

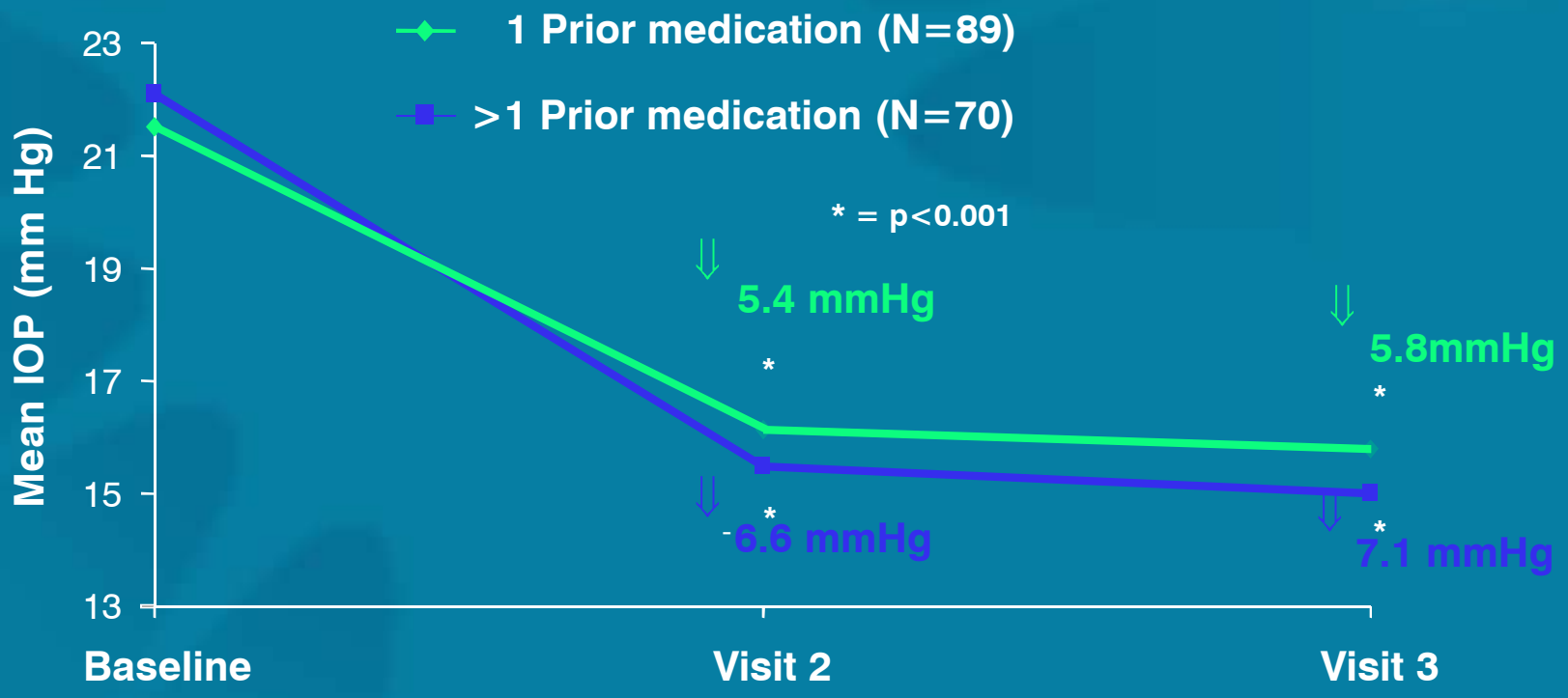
Lumigan further lowers IOP in all category of patients



Mean IOP by "Difficulty to Control" N=444

Data on file Allergan India Pvt. Ltd.

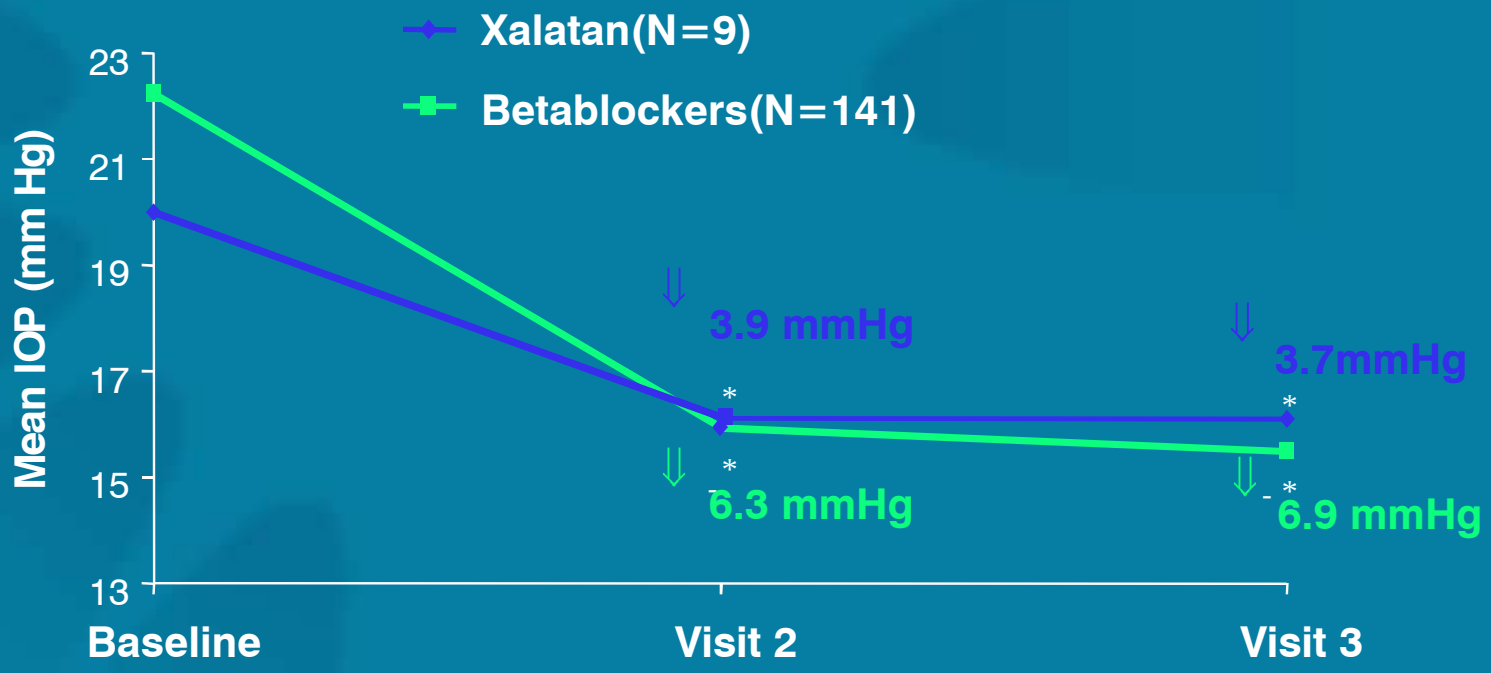
Lumigan as a replacement therapy further reduces IOP



Mean IOP By Number of Medication (s) in Patients whose prior medications have been replaced with Bimatoprost Monotherapy

Data on file Allergan India Pvt. Ltd.

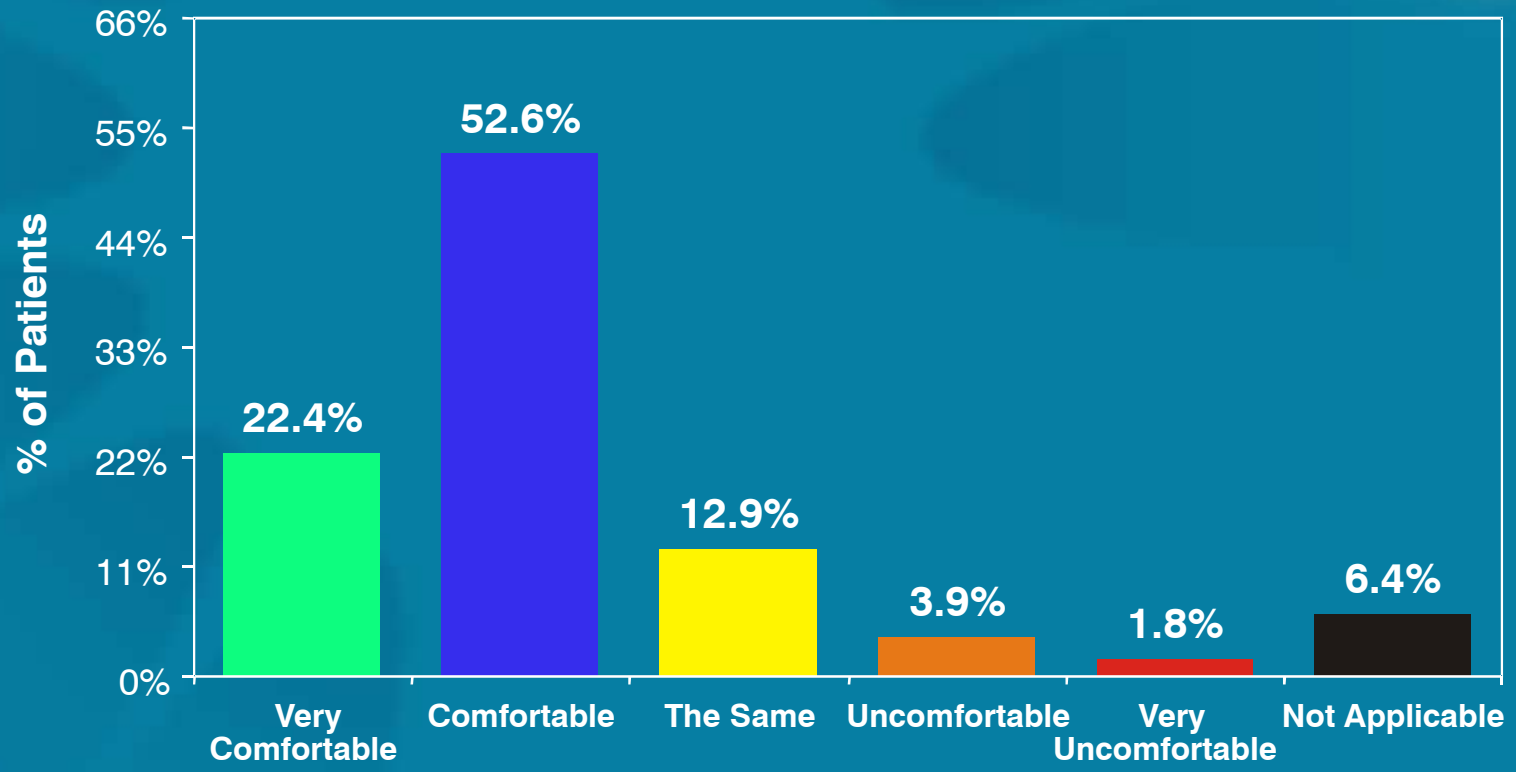
Replacement of Beta-blockers / Latanoprost with Lumigan resulted in an additional IOP reduction



Mean IOP Replacement for Latanoprost or Betablockers
All patients who came for atleast one followup

Data on file Allergan India Pvt. Ltd.

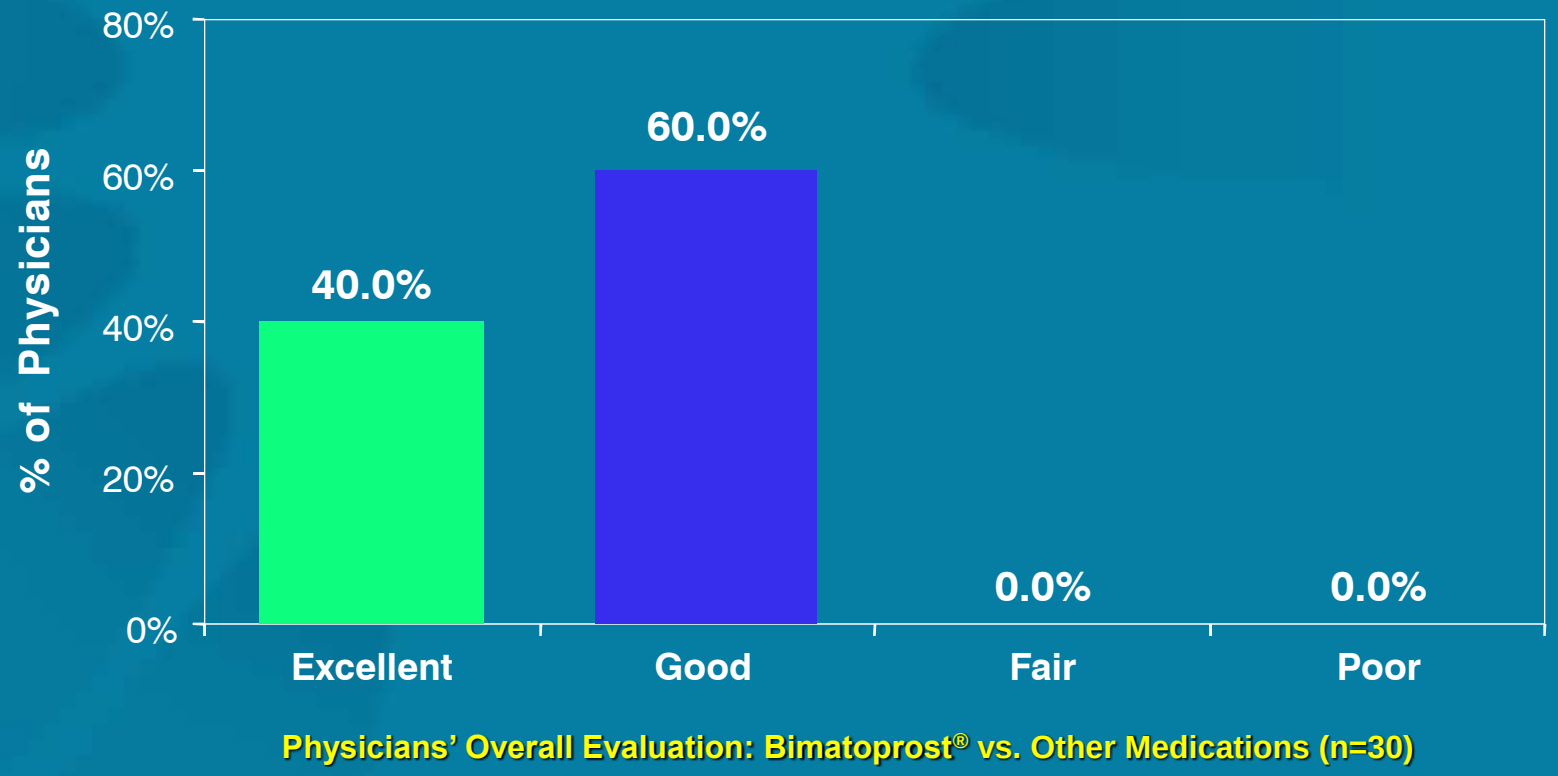
Majority of the patients rated Lumigan as a comfortable therapy



Patient Self-Evaluation: Future Use and Comfort (n=388)

Data on file Allergan India Pvt. Ltd.

Lumigan was rated as good or excellent by ophthalmologists involved in the study



Physicians' Overall Evaluation: Bimatoprost® vs. Other Medications (n=30)

Data on file Allergan India Pvt. Ltd.

Adverse Events

- **Bimatoprost was safe and well tolerated**
  - **Very few adverse events were observed (13.2%)**
  - **The reported adverse events are**
    - **Conjuntival hyperemia (2.7%)**
    - **Conjuctival congestion (1.3%)**
    - **Redness (2.5%)**
    - **Pain (1.1%)**

Data on file Allergan India Pvt. Ltd.

Thank you!