ヤグチ電子工業株式会社

YAGUCHI ELECTRIC CORPORATION

地域未来牽引企業

SUSTAINABLE DEVELOPMENT GOALS

医療機器製造業（04BZ200026）
第三種医療機器製造販売業（04B3X10008）
Approved Medical Product Manufacturer and Distributor

1974～1980s

Established as an assembly base for
SONY Walkman® in Japan

1990s

200 mil. units of products manufactured for SONY
Achieved 99.999% production yield
Obtained SONY Green Partners
and various international certifications

2000s

Strengthen OEM business, including
G-SHOCK® manufacturing

For IRIS OHYAMA
Full-scale mass production prototyping
/ rework business

IRIS OHYAMA

IRIS OHYAMA

Assisting Iris Oyama, whose group sales are 790 billion yen, with mass production prototype

Large Appliance

Provide Full Support for Comfortable Living

Air Conditioner

To fit any lifestyle, we offer various settings that you can control remotely with an exclusive smartphone application. Motion-sensor enabled and Eco-mode options automatically turn on when the sensor does not detect people, operating creating easy efficiencies for the user.

Front Load Washer

Refrigerator

Lifestyle Electrics

Support for your evolving lifestyle

Ultra Slim & Lightweight Vacuum Cleaner

This streamlined, lightweight, stick vacuum cleaner offers a unique mop attachment that helps you complete your cleaning faster and is the first in the industry. This distinctive appliance is developed by IRIS, a leading housewares manufacturer from Japan.

Blanket Warmer

Lighting

Illuminating Life in Your Home

LED Ceiling Light / Metal Circuit Series

With the new structure of placing LED chips all over the inside of the ceiling light, we meticulously brighten up your room.

Small & Thin Ceiling Light

LED Light Bulb

Kitchen Appliances

Your Partner for A Delicious and Healthy Lifestyle

Microwave Oven with Steam Defrosting Mode

With a specially designed cooking container, this unique steam oven allows you to defrost ingredients evenly in addition to offering various cooking programs.

Seasonal Appliances

Providing comfort all year round

Remote Controlled Compact Globe Oscillating Circulator Fan

Using the improved globe-shaped spiral front guard, this desktop fan enables you to maximize air flow.

Air Purifier with Humidity Control

Dehumidifier with Oscillating Fan

Electronics

Aiming to provide complete assortment of appliances for your everyday life

4K TV with HDR "LUCA Series"

Our LED TV creates a high-resolution digital image that reproduces natural colors as you see them in real life.

2011March 11, Entered the environmental measurement field

First in-house product [Pocket Geiger] launched
World's first smartphone-connected radiation sensor

GOOD DESIGN

reddot design award

[Pocket CO2 Sensor] Visualizing the risk of airborne transmission of COVID-19

- Successful crowdfunding Kickstarter
- 100,000 units sold, share of measured values at more than 1 million points
- Received Good Design Award and German RedDot Design Award

2013 Entered medical device field

Oculpad : amblyopia training tablet

- 1,000 units supplied to ophthalmology clinics in Japan
- Monodzukuri Nippon Grand Award (METI Award)
- Japan Institute of Invention and Innovation (MEXT Award)

Pokémon ® Series

- Pokémon Stereo Test 1,000 units shipped
- Pokémon Occluder 500 units shipped

Medical device manufacturing (04BZ200026)
Type III medical device manufacturing and sales company (04B3X10008)

Equipment

Equipment	Manufacturer / Capacity	Units
Lead-free reflow oven	Senju SAI-638	1
Chip mounter	YAMAHA YSM10	1
Chip mounter	YAMAHA YS100	1
Solder printer	YAMAHA YCP10	1
Substrate visual inspection equipment	MARANTZ 22XPPC7	1
Ditto	Rexxam sherlock-300	1
Constant temperature chamber	Az one DO-30FA	1
In-circuit tester	Okano 510ZII	1
Compact clean room	Approx.9.27㎡	1
Insulation resistance tester	Kikusui TOS8850	1
Ionizer	Shishido BF-2DD	10
High/constant-temperature chamber	KATO SSE78CRA	1
3D printer	MUTOH cubex trio	1
V-cut breaker	CAB	1

Design thinking method

From prototype to mass production is achieved quickly.

Projects by Crowdfunding

Executive Officers

Masatoshi Sato
CEO
General Manufacturing and Sales Manager of Medical Devices, etc..
Joined the company in 1994 and worked with SONY for 20 years in design/production/quality control.
The motto is "Never say no.

Yo Ishigaki, Doctor (Engineering) Master (Fine Arts)
Board of Director/CTO in charge of R&D, industry-academia/medical-engineering collaboration

Specially Appointed Professor at the University of Electro-Communications
2002 Joined IS Laboratory, SECOM Co. Ltd.
2012: Changed jobs after Great East Japan Earthquake

Amblyopia Treatment by Occlu-Pad®

Amblyopia (lazy eye)

Amblyopia is a condition that occurs in children in which one eye has poorer vision than the other. One of the typical symptoms of Amblyopic eye is Strabismus (squint).

3% of newborn babies are affected by Amblyopia for every races.

The above images are for illustrative purposes only.
Photo: Adobe stock

Mostly curable

If Treated Before Six Years Old.

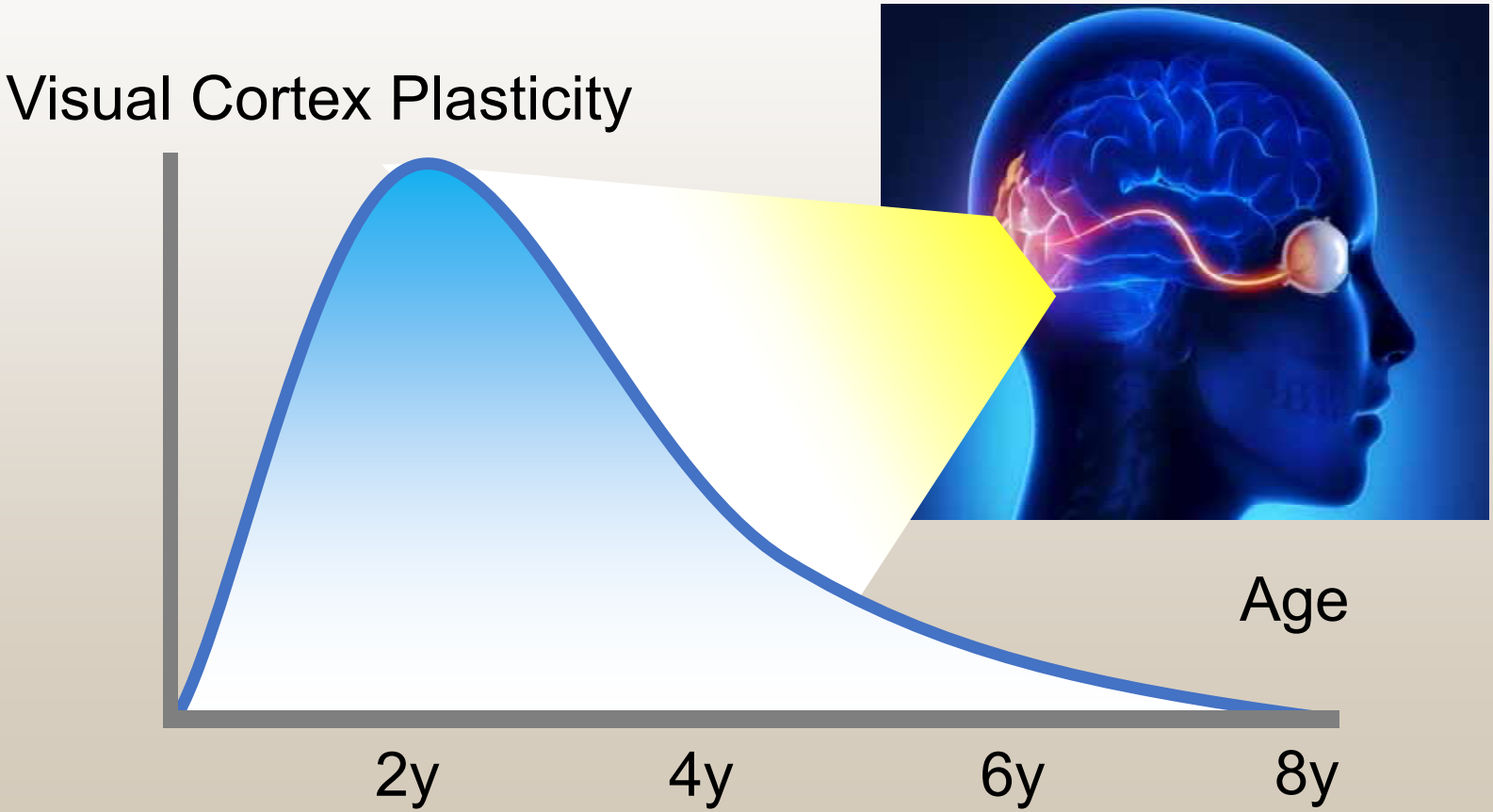
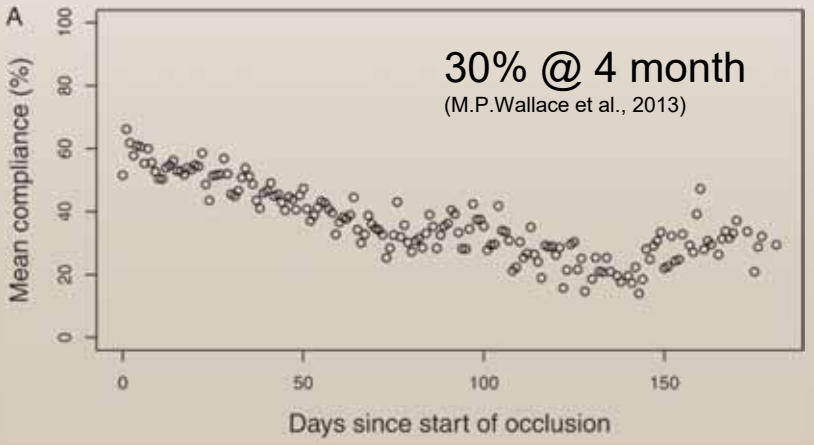


Photo: Adobe stock

Eye Patching
on Healthy Eye

eye-patching on healthy eye is almost only solution to fix Amblyopia.
by applying visual stimulation on an Amblyopic eye,
But is has serious side effects such as mental pain, loss of depth feeling, rash of skin, or occlusion Amblyopia.



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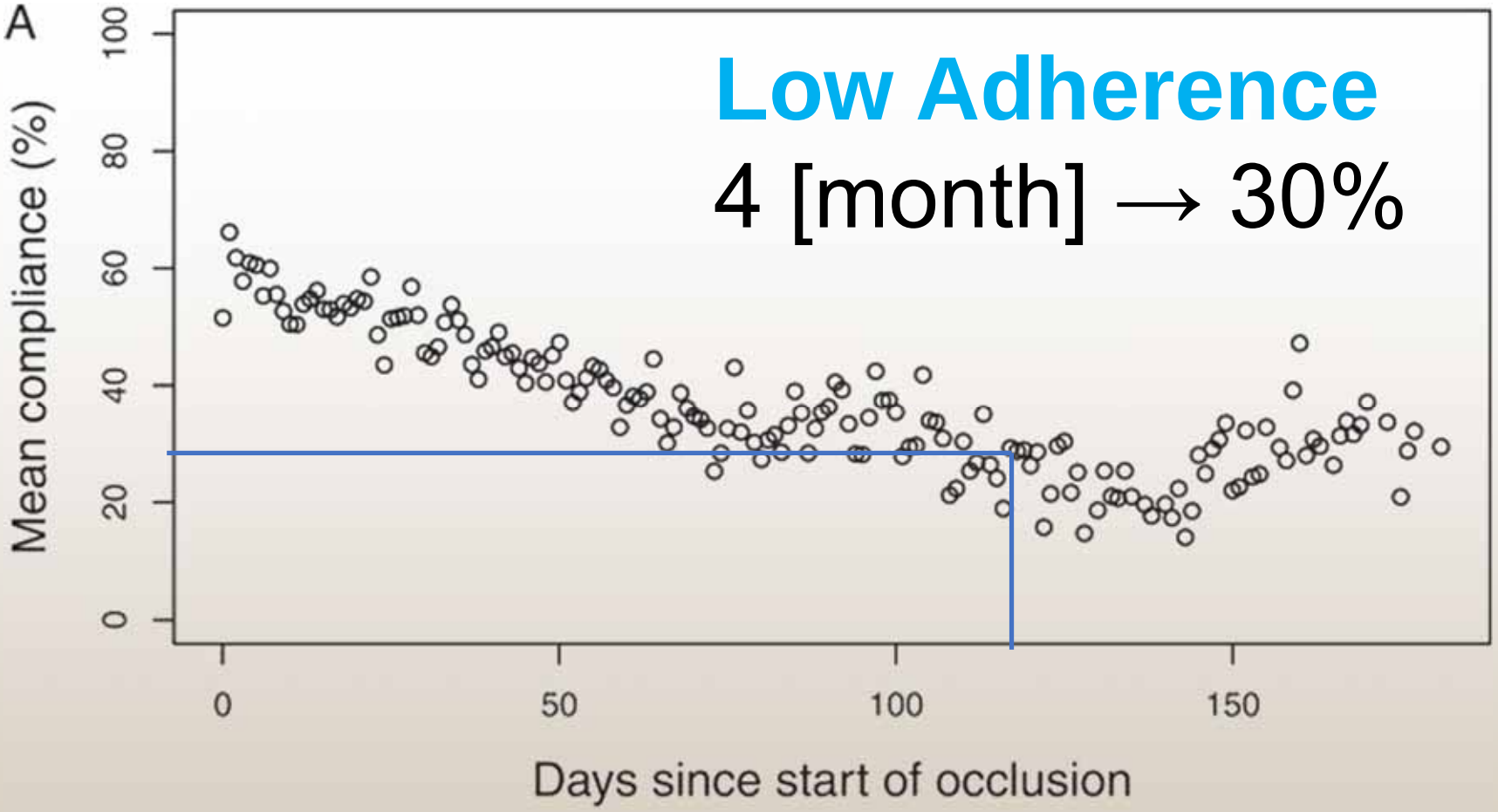


Mean compliance with prescribed dose across all individuals still in treatment. Days with fewer than 10 individuals remaining in treatment not shown.

Visual Psychophysics and Physiological Optics | September 2013 Compliance With Occlusion Therapy for Childhood Amblyopia Michael P. Wallace; Catherine E. Stewart; Merrick J. Moseley; David A. Stephens; Alistair R. Fielder

Powerful eye drops for defocusing

The above images are for illustrative purposes only.
Photo: Adobe stock

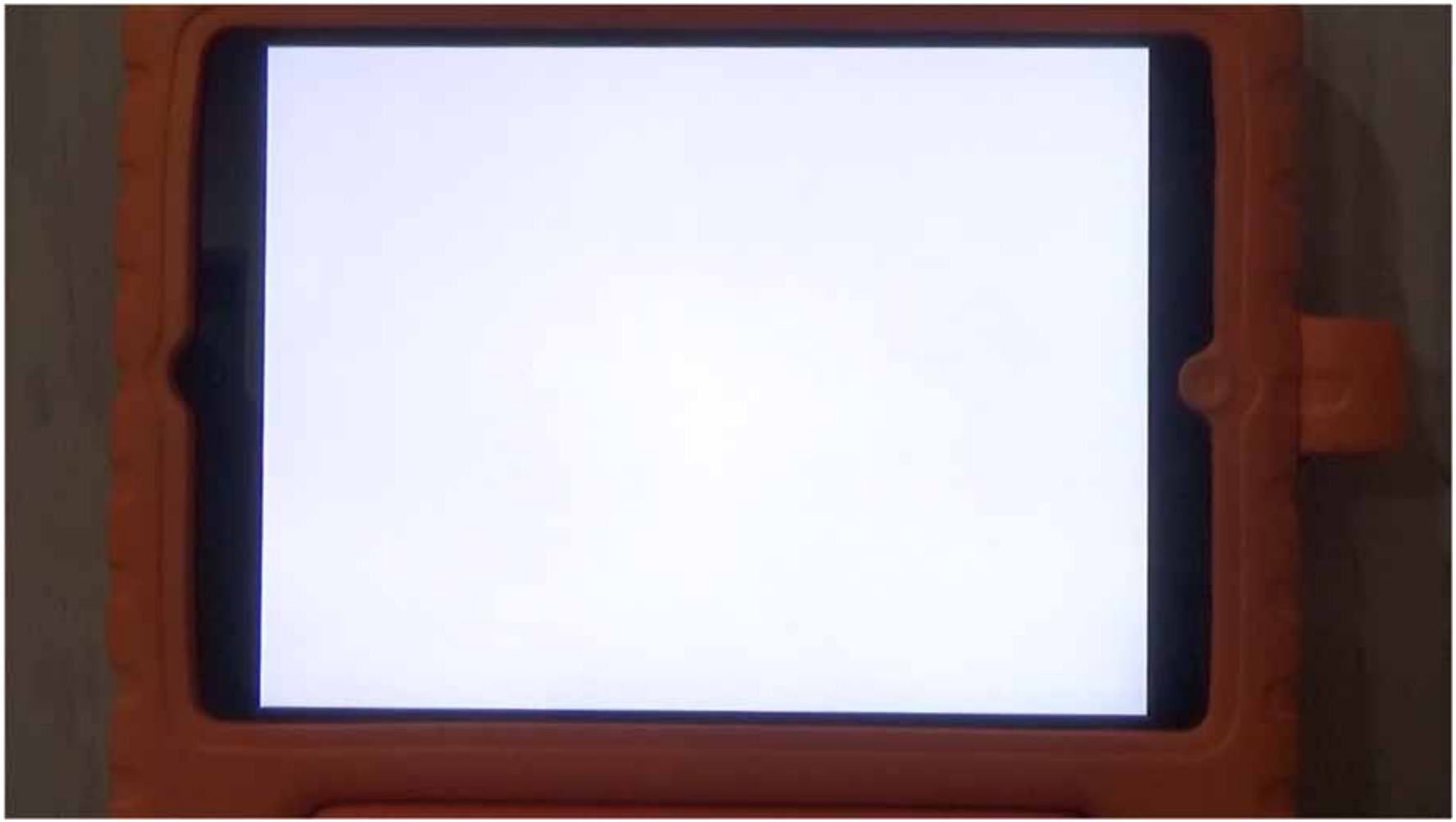
occlu·pad®

視機能検査訓練器 オクルパッド®

Binocular Gaming Tab;

- Safer and More Effective
- Easier for patients to use

And it is fun!

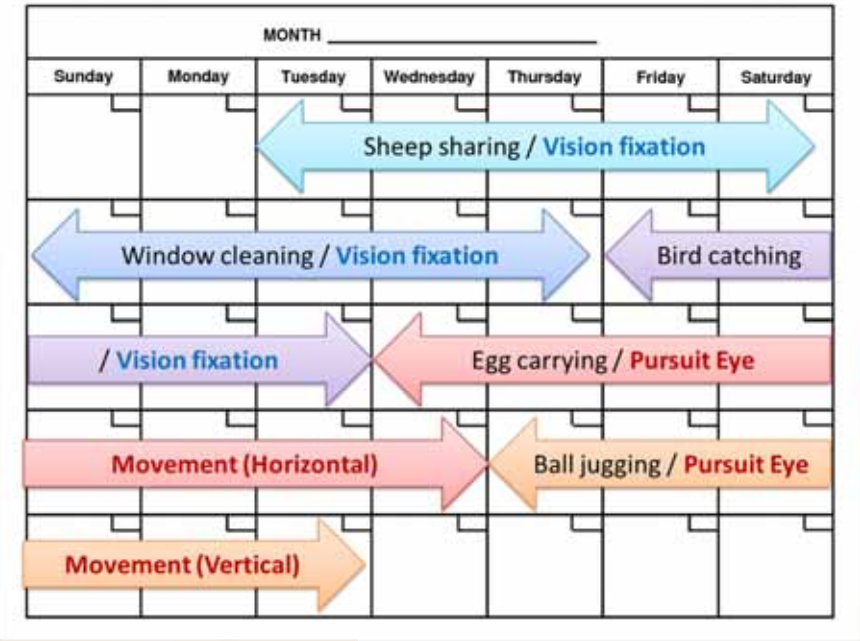


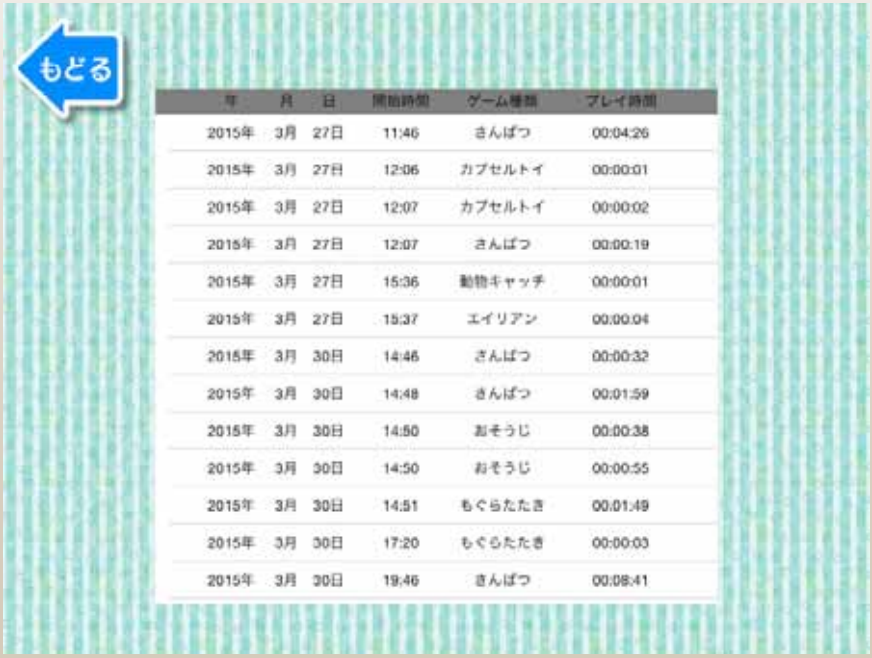
The screen goes to be completely white for human eyes.
We use polarizing filter for the impaired eye, and light reduction filter for the good eye.
Then, you can see the screen as normal only by your impaired eye.

Eight Games for Vision Training

We have gamification method, based of medical effect, such as vision fixation or eye-hand coordination.

Training Schedule





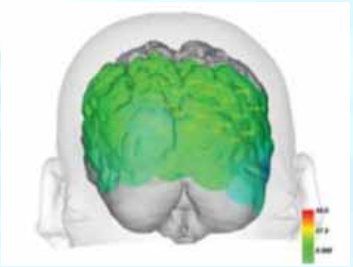
年	月	日	開始時間	ゲーム種類	プレイ時間
2015年	3月	27日	11:46	さんぱつ	00:04:26
2015年	3月	27日	12:06	カプセルトイ	00:00:01
2015年	3月	27日	12:07	カプセルトイ	00:00:02
2015年	3月	27日	12:07	さんぱつ	00:00:19
2015年	3月	27日	15:36	動物キャッチ	00:00:01
2015年	3月	27日	15:37	エイリアン	00:00:04
2015年	3月	30日	14:46	さんぱつ	00:00:32
2015年	3月	30日	14:48	さんぱつ	00:01:59
2015年	3月	30日	14:50	おそうじ	00:00:38
2015年	3月	30日	14:50	おそうじ	00:00:55
2015年	3月	30日	14:51	もぐらたたき	00:01:49
2015年	3月	30日	17:20	もぐらたたき	00:00:03
2015年	3月	30日	19:46	さんぱつ	00:08:41

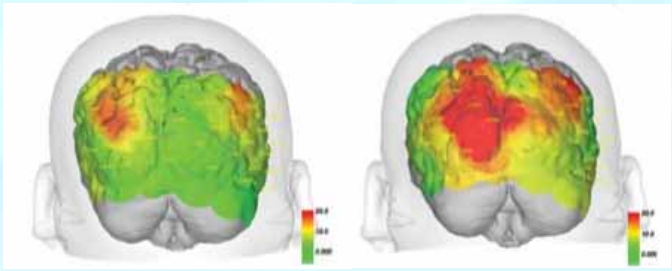
Efficacy of Both eyes Open in Brain activity

Monocular

Binocular Dichoptic game

(Eye-Hand Coordination)





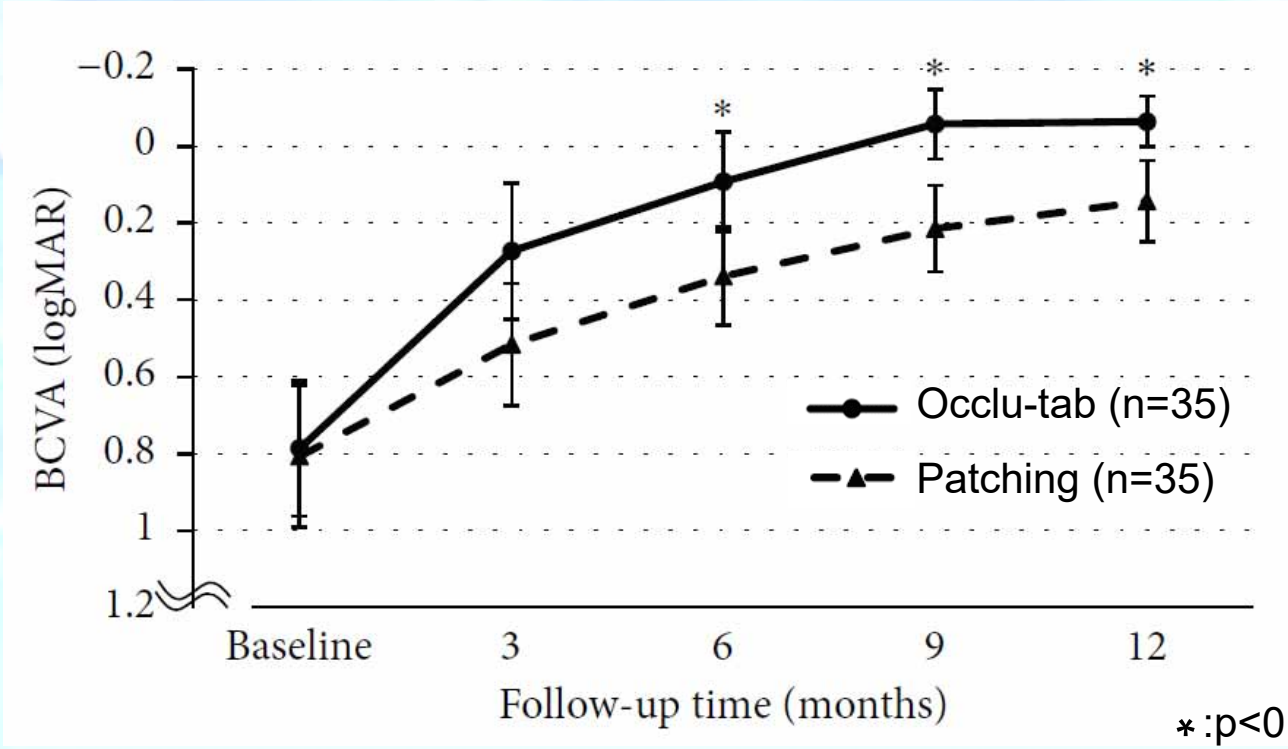
Efficacy of an Amblyopia Treatment Program with Both Eyes Open: A Functional Near-Infrared Spectroscopy Study.

(Iwata Y, Handa T, et al, Am orthopt J, 2016.)

Playing the game with both eyes open provides stronger visual stimulation.

BCVA：Occlu-tab vs Patching

Anisometropic amblyopia

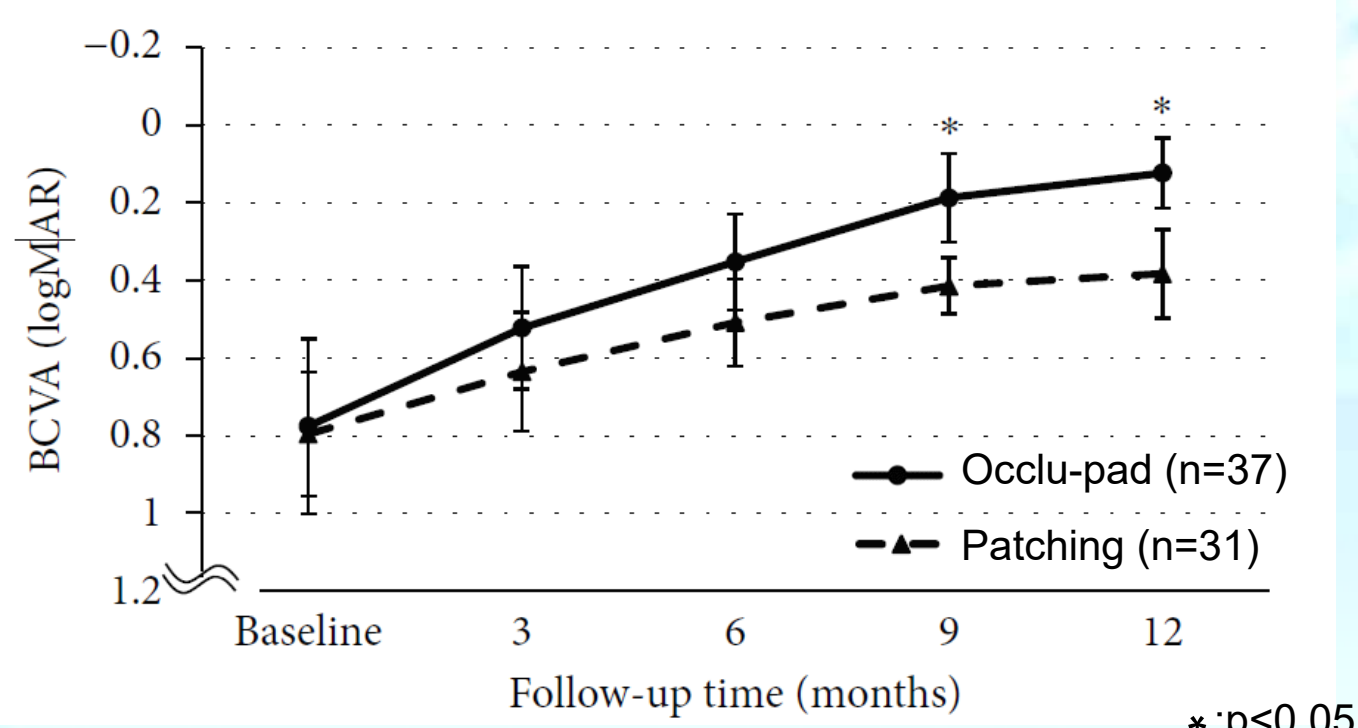


∗:p<0.05

Totsuka S, Handa T, et al. Improvement of Adherence with Occlu-Pad Therapy for Pediatric Patients with Amblyopia. Biomed Res Int, 2018

BCVA：Occlu-tab vs Patching

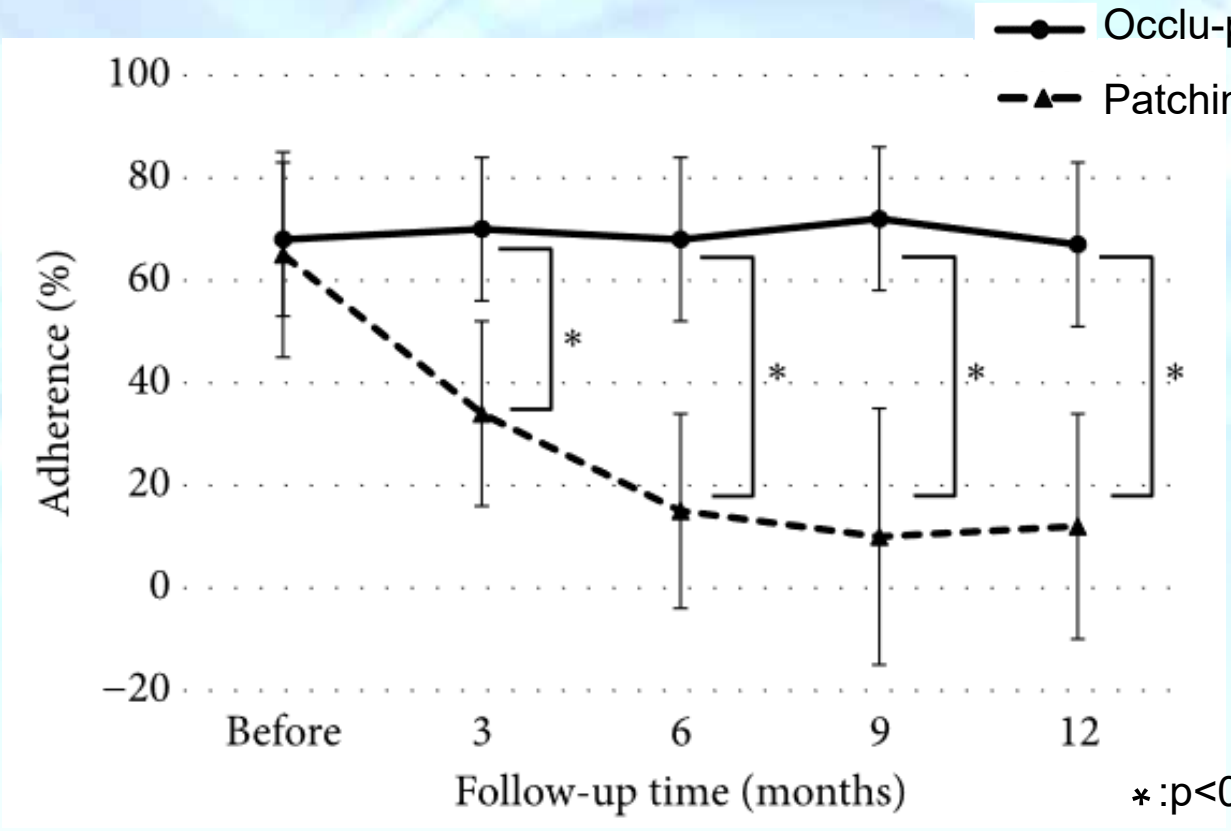
Strabismic amblyopia



*:p<0.05

Totsuka S, Handa T, et al. Improvement of Adherence with Occlu-Pad Therapy for Pediatric Patients with Amblyopia. Biomed Res Int, 2018

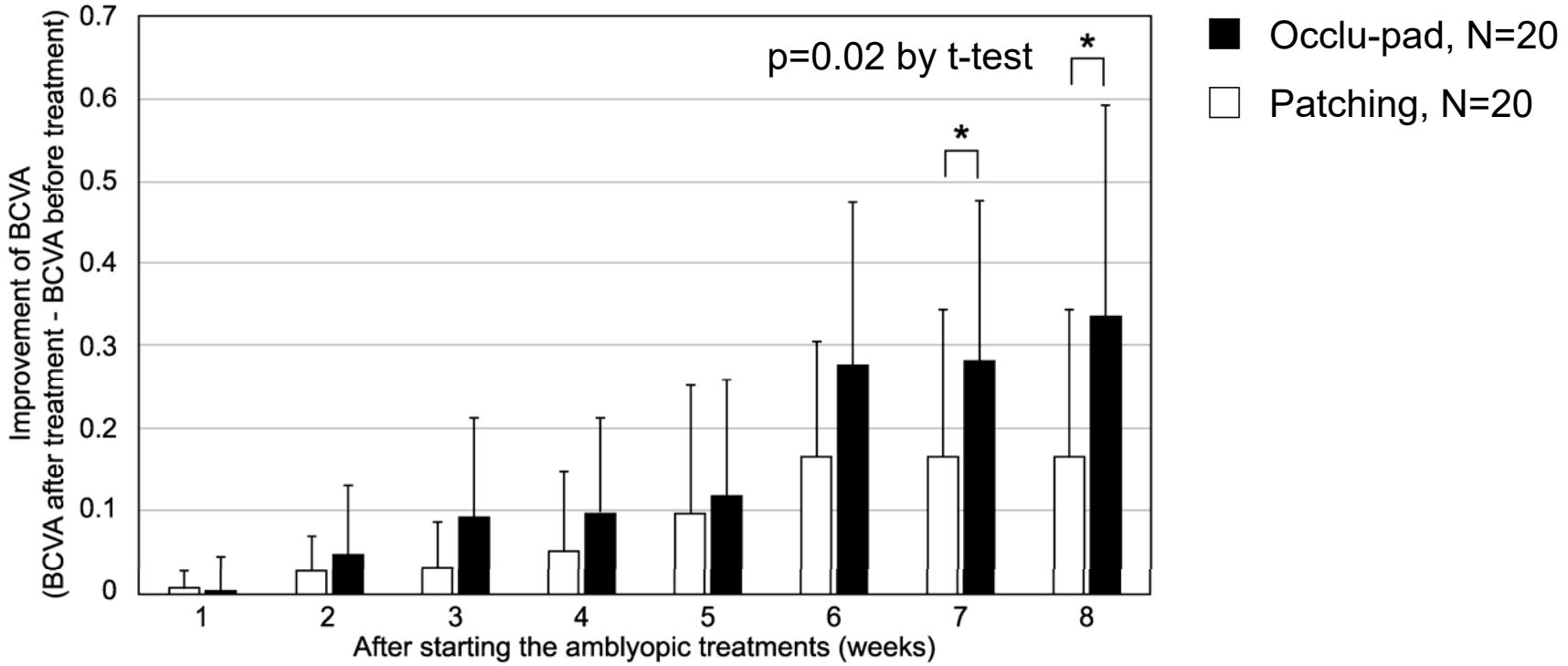
Adherence：Occlu-tab vs Patching



Totsuka S, Handa T, et al. Improvement of Adherence with Occlu-Pad Therapy for Pediatric Patients with Amblyopia. Biomed Res Int, 2018

BCVA：Occlu-tab vs Patching

In Indian Children
RCT (Randomized Controlled Trial)



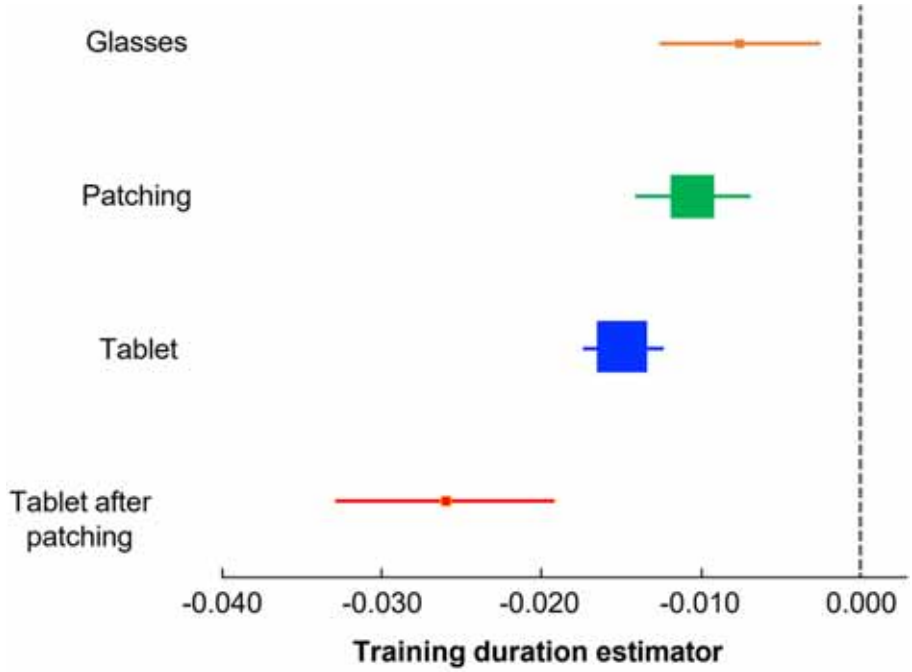
Handa T, et al. Comparison of the Effectiveness of Amblyopia Treatment with Eye-Patch and Binocular Occlu-Tab for the Same Treatment Duration. Indian Journal of Ophthalmology, in press

Medical Evidences

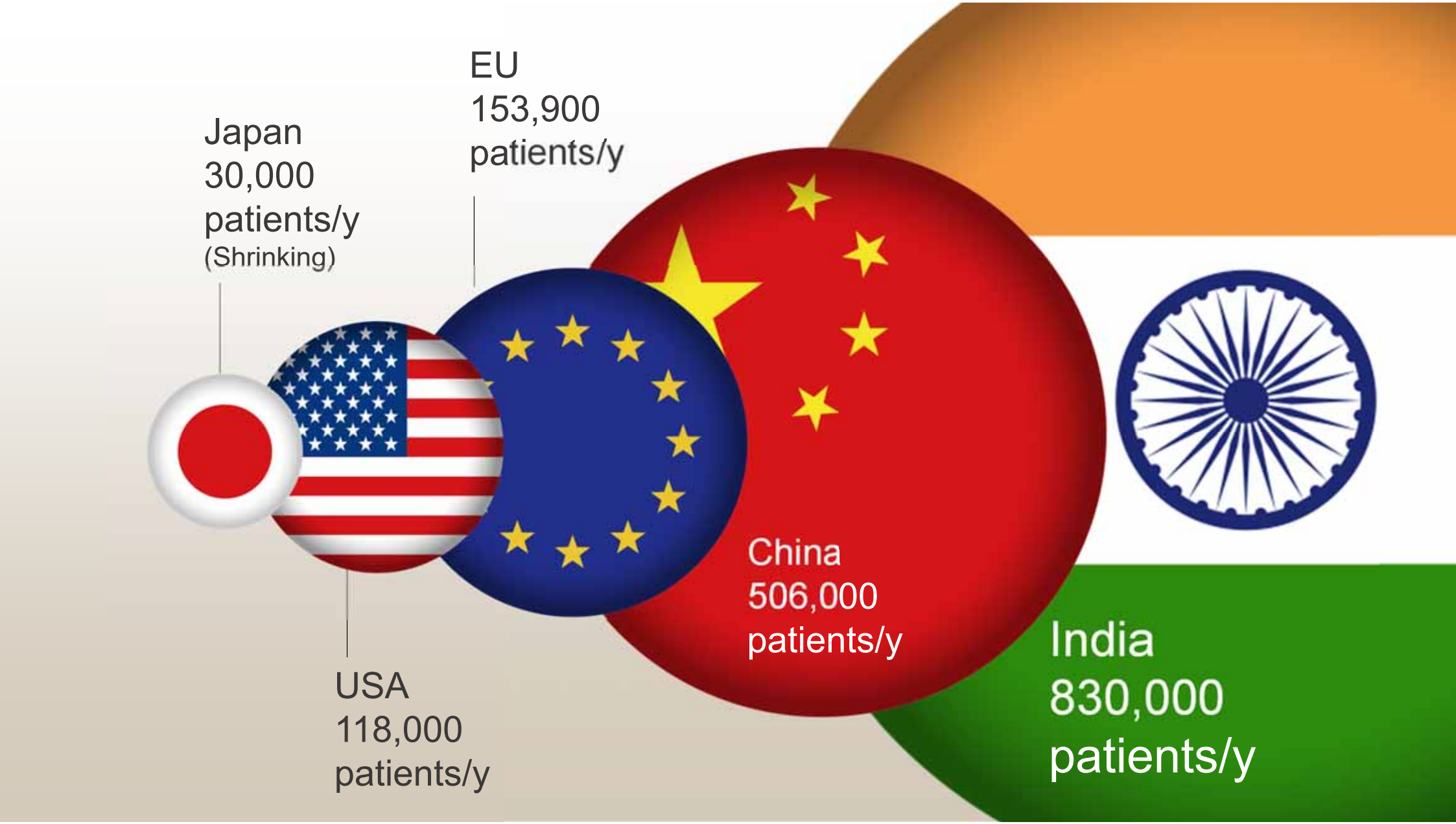
Meta-analysis combining multiple RCTs (in mid-progress)

Significantly faster visual recovery with patching + tablet combination, tablet, patching, and glasses, in that order

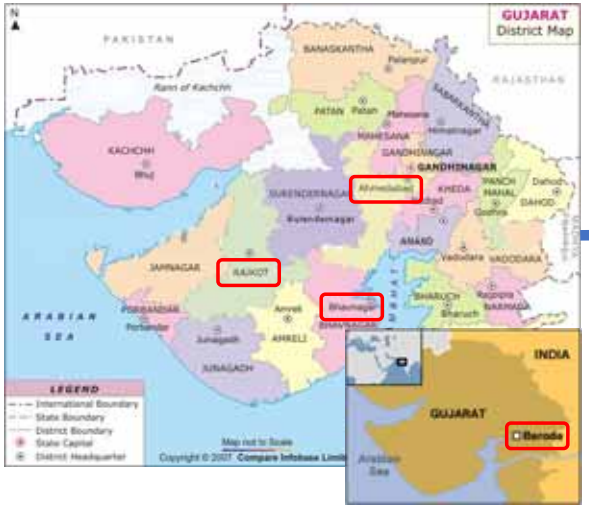
Source:
https://library.triton.edu/c.php?g=433673&p=3720267

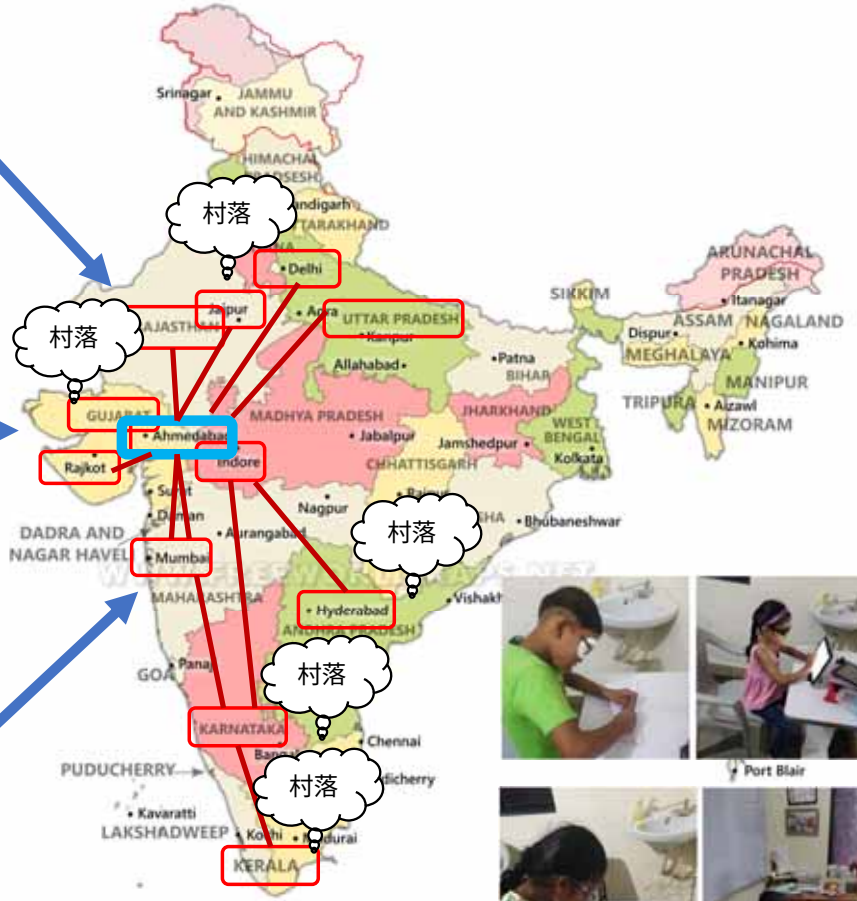


Dr. Kalpit Shar, M.D., Civil Hospital Ahmedabad, Gujarat


Japan
30,000
patients/y
(Shrinking)
EU
153,900
patients/y
USA
118,000
patients/y
China
506,000
patients/y
India
830,000
patients/y

Clinical studies in India





No.	Organization name	Region	Class.
1	M&J Institute, RIO Ahmedabad	Gujarat	Public
2	Stavan Eyeclinic, Ahmedabad	Gujarat	Private
3	GMERS Sola, Ahmedabad	Gujarat	Public
4	Ramkrishna Mission hospital, Rajko	Gujarat	Public
5	Baroda Children Eye Care, Baroda	Gujarat	Private
6	Max vision Eye Care, Jaipur	Rajasthan	Private
7	C H Nagari Eye Hospital, Ahmedabad	Gujarat	Public
8	K J Somaiya Eye Hospital, Mumbai	Maharashtra	Trust
9	Alakh Nayan Eye Hospital, Udaipur	Rajasthan	Public
10	BPA Jamnabhai School of Optometry	Gujarat	Public
11	Vismit Eye Clinic	Maharashtra	Private
12	Rajawadi Hospital	Maharashtra	Public
13	Shradha Health Care Pvt. Ltd.	West Bengal	Private
14	Salt Lake Clinic	West Bengal	Private
15	iKure	West Bengal	Others
16	Subset Systems	Gujarat	Others
17	Bareja Eye Hospital, Blind People's Association	Gujarat	Public
18	Tejas Eye Hospital Run by Divyajyoti Trust	Gujarat	Trust
19	Children Eye Care and Adult Squint clinic (Amber clinics)	Gujarat	Private
20	Ram Krishna Eye Hospital	Uttar Pradesh	Private
21	Bhalanetra Super Speciality Eye Hospital	Maharashtra	Private
22	SEWA Rural	Gujarat	Trust
23	Prime Eye Care	Gujarat	Private