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India's Pharmaceutical Ophthalmic Market Outlook

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ABSTRACT
India's and the world's ophthalmic pharmaceutical markets are both expanding and growing. This review article provides an overview of the current pharmaceutical market globally and contrasts the situation in India with the international ophthalmic drug markets. It also provides additional insights into the relative growth and contribution of each individual ophthalmic therapy segment as well as a look at the pipeline for ophthalmic drugs in the future.

Keywords: Markets, ophthalmic, pharma

1. INTRODUCTION

THE EXPANDING ROLE OF INDIA IN THE GLOBAL PHARMACEUTICAL MARKET

At a cumulative annual growth rate (CAGR) of 5%, the worldwide pharmaceutical market is projected to more than double to US$1.3 trillion by 2020. The E7 countries—Brazil, China, India, Indonesia, Mexico, Russia, and Turkey—will account for roughly one-fifth of global pharmaceutical sales. [1,2] By incremental growth, India is probably in the top three pharmaceutical markets and ranks sixth overall in terms of market size. [3,4] The pharmaceutical market had revenues of Rs. 10,029 crore ($1.56 billion) in March 2018, an increase of 9.5% from the same month the previous year. India is ranked third in quantities but ninth internationally in terms of value. This expansion will be influenced by factors such as the rise in middle-class households, the development of the healthcare system, and the prevalence of health insurance. India exported pharmaceutical items worth Rs. 767.17 billion (US$ 11.90 billion) between April 2017 and February 2018, and it is anticipated that this figure will rise to US$ 40 billion by 2020. More than 200 nations throughout the world import medications from India, with the US being the largest market, followed by Europe,

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Africa, and various Asian nations. India is the largest exporter of generic medications in the world, making up between 70 and 80 percent of the local retail market and 20 percent of all generic drug exports globally in terms of volume.

MARKET OVERVIEW FOR OPHTHALMIC PRODUCTS

The over US$ 47 billion market for ophthalmic devices and equipment dominates the global ophthalmology market. Surgical gadgets constitute 25% of this market. When compared to the global growth of 4.06%, India's current ophthalmic market is predicted to develop at a CAGR of 5-6.8%, or around US$1.3 billion. [5] Cataract surgery and diagnostic tools rank first in India in terms of revenue, followed by dry eye and glaucoma, the latter two of which dominate the ophthalmic medicine industry. Only 7.1 million cataract surgeries were performed in 2017, and the associated revenues are projected to account for more than 25% of all ophthalmology market revenues in the nation. [6,7] The market for diagnostic tools, which is currently India's second-largest ophthalmic market, is anticipated to surpass $257 million by 2022. In India, the glaucoma category is the ophthalmic pharmaceutical submarket that is predicted to develop at the fastest rate, with a CAGR of almost 11%, to reach US$271.8 million by 2022.

PHARMACEUTICAL EYE CARE MARKET

This is what the market for ophthalmic therapeutic drugs looks like. The market for ophthalmic pharmaceuticals worldwide was estimated to be worth almost $30 billion in 2016 and is projected to grow to $42 billion by 2023, with a CAGR of 5.3% from 2017 to 2023. [8] Due in part to a rise in the number of elderly people there, 35% of the donation comes from North America. Global demand for ophthalmic drugs is driven by those used to treat disorders like glaucoma, cataracts, and ARMD and diabetic retinopathy in the retina.

Nearly 20% of the therapeutic worldwide ophthalmology industry is dominated by the glaucoma and retina markets, while the prescription dry eye market accounts for less than 5% of total sales and has a higher OTC percentage. The American Academy of Ophthalmology estimates that 11 million Americans have age-related macular degeneration (AMD), with wet AMD affecting about 10% of those individuals. The prevalence of retinal illnesses has increased significantly (CAGR of 5.8% from 2017 to 2023) with dry AMD accounting for the biggest share of all retinal disorders in 2016. [8] The development of combination medicines for the treatment of glaucoma is progressing due to the high prevalence of glaucoma worldwide. These trends help fuel the expansion of the worldwide retina market. Market participants' increased investment in emerging economies presents profitable potential for market expansion in the foreseeable future. [8]

The introduction of new ocular medication delivery is the current topic of interest worldwide. With a growth in the development of innovative ocular drug delivery techniques, including nanoparticles, noisome, and dendrimers, multicompartment drug delivery systems recorded the greatest CAGR of 8.0%. [8] From roughly 1400 crores INR in 2014 to 2200 crores INR in 2018, India's pharmaceutical ophthalmic market increased. Currently, this market is expanding at a 6.4% annual rate (2018). [9] The pharmaceutical market in India is dominated by glaucoma and tear substitutes (for dry eye) (Figures 1 and 2 show the relative breakup of the Indian ophthalmic drug market subsegments and their current growth, respectively).

The market for tear substitutes and lubricants using methyl cellulose (carboXymethyl cellulose and hydroXypropyl methylcellulose) as well as other products containing

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polyethylene glycol and polyvinyl alcohol makes up the majority of the dry eye category by market share. Topical cyclosporine contributes around 3-4% of the total, hyaluronic acid-based lubricating drops about 2%, and topical rebamipide and vitamin A about 1%. Nearly 200 brands and almost two thirds of this market are branded generics.

The glaucoma subsegment of the ophthalmic pharmaceutical industry is expanding at the quickest rate. More than one-third of this market's value is made up of prostaglandin analogs, with innovator-branded prostaglandin analogs accounting for approximately 25% of that market's value. A further third of the market is made up of fixed-dose combos, with the brimonidine-timolol combination accounting for 20% of the total market value for glaucoma. Alpha-agonists, carbonic anhydrase inhibitors, and beta-blockers each receive an equal amount of the remaining dosage. The innovator brands account for about 45% of the market overall, which is the biggest share of any ophthalmic submarket, while the remaining 60% is made up of branded generics. India's glaucoma market fragmentation closely reflects changes in the worldwide glaucoma market.

One-fourth of the ocular pharmaceutical market, which comprises primarily of branded generics with a sizable prescription contribution from doctors as well, is made up of anti-infectives and their combinations with corticosteroids. Current market leaders in the categories of anti-infectives, nonsteroidal anti-inflammatory medicines, and antiallergic ophthalmic medications are moXifloXacin (45%), nepafenac (51%), and olopatadine (38%), respectively. 90% of this very tiny submarket for simple steroids is made up of loteprednol, fluorometholone, and prednisolone, with loteprednol constituting the expanding market. Almost 90% of the retina pharmaceutical submarket is currently made up of various antioXidant combo supplements, with monoclonal antibodies making up the remaining 10% and formulations like silicon oil making up the remainder. Saline/salts, mydriatics, anesthetic drops, and various herbal treatments are some of the other tiny submarkets (1% each). [9]

FUTURE PROSPECTS

Over three-quarters of the ophthalmic medication market is made up of branded generics, and this generic market will keep growing in every subsegment in line with the anticipated expansion of the ophthalmic pharmaceutical market in India. A sizeable portion of OTC sales go toward the eye drop category, which includes tear substitutes, antibiotics with and without steroids, and saline/salt preparations. In the near future, innovative brands are expected to be introduced in three ophthalmic areas. The medicine lifitegrast, lacritin, nasal tear stimulators, and sodium channel blockers may enter the dry eye segment. Formulation technology may also advance with the development of nanomicellar formulations, mucus penetration particle technology, and treatments for meibomian gland dysfunction. [10-16] The USFDA has previously approved two new products in the glaucoma market—Rho kinase inhibitors and latanoprostene bunod—and is currently reevaluating a third product, trabodenoson (an adenosine A1 agonist). [17-19] DARPins (ankyrin derivatives), non-biodegradable long-term fluocinolone-eluting implants, antiplatelet-derived growth factors, and a number of monoclonal antibody medicines under development are expected to be visible in the retina section. [20-22]

In addition to future prospects and the creation of novel new medications, this overview also provides an overview of the existing makeup and growth pattern of the Indian ophthalmic pharmaceutical business. New drug formulations and delivery methods are also briefly discussed.

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