An Analysis of the Causes of Low Cataract Surgical Rate

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Abstract. In this paper, the phenomenon of cataract in the elderly without surgery is investigated and analyzed, and the causes are analyzed and counted through questionnaire, field trip, hospital interview and other methods. The three reasons of low operation rate are economic condition, awareness towards the disease and medical technology level. The solutions and suggestions are presented. It is of great significance to improve the health level and life happiness index of the elderly.

Introduction

In China with an aging population, the incidence of cataract among the elderly is rising rapidly. Cataract itself is not an incurable disease, nor will it lead to blindness. At most, it only blurs the vision. But there are still many old people blinded by cataract and lose the ability to take care of themselves. The reason is that they are not willing to receive cataract lens replacement surgery for a long time, which leads to their blindness step by step. Why do so many elderly people not choose the path of health and light, but to give up treatment?

With cataract prevalence rate in more than 80% of the elderly in China, the prevalence rate of surgery is less than 40%. Millions of elderly people are blind every year. What is the reason for such a low rate of surgical treatment? We went into major communities and hospitals in Wuxi, collected cataract data, and conducted private interviews to achieve research purposes.

Analysis of Economic Reasons

The Patients’ Own Poor Economic Condition

According to a survey conducted in a town in Jiangsu Province, Uncle Wang, 62, has suffered from cataract for two years. His right eye vision is less than 0.1, his left eye is blind. But his family has no source of finance. Generally speaking, surgery must be done to change the crystalline lens in half a year, but the reason for the delay is that the family has not been able to collect 6,000RMB. His offspring work in other cities and raise many children. Their livelihood is already difficult, there is no extra money for him to take the surgery. The savings are also prepared for the marriage of his offspring, now the family is impoverished. They have no relatives to borrow money from. They cannot expect they can spend a lot of money to treat eye disease. This sad experience can only make people lament at the helplessness of life. The poor do not even have the right of health. After interviewing several families of cataract patients with difficult conditions, It was found that very few of them had undergone surgical treatment, most of their offspring have no financial condition to provide them with proper treatment. And we went to several families in the same town with relatively good economic conditions and old-age cataract patients with children. Almost all of them have been replaced with new crystalline lens, and some have even replaced with more durable and clearer imported German crystalline lens. Therefore, through a large number of interviews and comparisons, it is found that the family operation rate of cataract patients with poor economic conditions and without children’s assistance is low.
Insurance Cannot be Settled Jointly

According to the analysis of the changes of cataract extraction operation volume and its related factors in Shanghai from 2013 to 2015, it is shown that most of the elderly migrants do not have Shanghai social medical insurance, or the medical insurance in the registered permanent residence cannot be settled jointly with Shanghai medical insurance, so they cannot enjoy the medical insurance policy of cataract extraction operation. The proportion of immigrants participating in comprehensive insurance is less than 30%, and the reimbursement rate is also low. Therefore, most of the elderly migrants choose to give up surgical treatment. When we went to Yangxiang Town in Yixing, Wuxi, we found that the local government’s subsidies for cataract are very small. One town can only subsidize five cataract surgeries for elderly people who have no sources of finance and no offspring. But most of the elderly have children, and the number of cataracts in five places is small compared with the number of cataracts in more than 400 people in Yangxiang Town every year. As a result, many impoverished families are still unable to get subsidized funds and have no money for surgery.

Regional Economic Imbalance

In the statistical cataract surgery coverage rate, Beijing’s surgical coverage rate and per capita disposable income are the highest. The two coincide. But in other provinces, such as Xinjiang, the coverage rate of cataract surgery is 57.6%, but the per capita disposable income is the lowest among the provinces in the whole country. In 27 provinces, compared with other provinces such as Jiangsu, the coverage rate of surgery does not show too much correlation with the local economic conditions. Chongqing, for example, has the disposable income per capita ranked 11 in the country, but only 27.4% of the surgical coverage. In the nine pieces of data in the table above, the surgical coverage of four provinces does not match their per capita disposable income very well. It can be seen that economic factors alone cannot affect the cataract surgical coverage in a region. But most of the mismatched models are high cataract surgery coverage in low-income areas, and high-income areas have high cataract surgery coverage, so economic factors are still a condition affecting the operation coverage.

Analysis of the Reasons for Ideological Consciousness

The Shackles of Traditional Concepts

After conducting a questionnaire survey, we found that there were differences in the reasons why everyone did not receive cataract surgery. Except economic reasons, ideological reasons also account for a large part. Some patients do not know the disease and treatment of cataract, or even what cataract is. Surprisingly, worrying about the risks of surgery is not the main reason for the patient’s decision. Some patients refuse to undergo surgery because they do not know they can be operated on to treat their eye disease, while others feel that they are too old to receive an operation. What’s more, some people in the countryside think that cataract can help their families eliminate the ominous events, so there has been no treatment.

Uncertain Symptoms of Cataract

According to statistics, only 30% of patients said they knew they could treat cataracts by surgery. Some people cannot even give a clear definition of cataract. 30% of the patients were able to tell some general symptoms (such as blurred vision, duplication, etc.), while only 10 percent could tell that cataracts can cause blindness. More than 50% of the elderly even found themselves suffering from the ye disease cataracts during the survey, let alone undergoing surgery.

Statistics show that 1.2 million cataract patients are added annually in our country, and cataract leads to most blindness among all kinds of eye diseases. Many patients choose medicine to treat cataract because they are afraid of surgery. Most of them are middle-aged and elderly people over 50 years old. Because their various body functions begin to age, they think that surgery must be risky and choose conservative treatment. They are more confident that medication can cure cataract. In addition, the medical expenses are only a few courses of treatment, not a one-time payment of about 3000RMB for surgery, more to cater to the elderly’s psychology.
Treatment Is Not Clear

Will surgery be dangerous? Many cataract patients begin to worry about the danger of cataract surgery. 33% of patients said they did not know whether the process would cause pain and were afraid of surgery.

They also worried about whether they can receive the cataract surgery safely and successfully. Cataract and glaucoma are common diseases among the elderly. Many elderly people suffer from both eye diseases at the same time or successively. The development of glaucoma to a certain extent requires surgery, and the only effective way to treat cataracts is surgery. Therefore, some elderly people need two operations. After glaucoma surgery, many elderly people will worry that the previous surgery will affect the treatment of cataract, and have some worries and entanglements about reoperation. The previous glaucoma attack and glaucoma surgery trauma can destroy the structure of the eye, such as pupil deformation, shrinkage, corneal endothelial cell reduction and other complications, which increase the difficulty of cataract surgery. There are also some patients who say they actually want to have surgery, but because of various physical reasons (such as hypertension, diabetes, etc.), they want to get well first and then receive the cataract surgery later. That’s why they have been delaying the cataract surgery.

Doubts about Therapeutic Effect

33.33% of the patients who refused the operation said that the effect of the operation was not clear. 33.33% of the patients thought that the results varied from person to person. Only 33.33% of the patients had a positive attitude towards the effect of the operation. Therefore, facing the choice of whether or not to do surgery, many patients are skeptical about the effect of surgery, and ultimately refuse to accept surgery.

Rural patients often have the idea that minor diseases can eliminate ominous events at home. Some elderly people in the rural areas have described that some patients think that they have some minor illnesses and minor pains that can bring good luck to their families. If they are cured, they will lead to bad luck in their families. Therefore, some elderly people will not go to treatment even if they know they are ill, not to drip eyedrops, let alone to do surgery. Some patients think that they are old enough and they have nothing to do at home, even if their eyes are sick, they do not think it is necessary to spend money on surgery.

Regional Reasons

Regional Surgical Differences

In order to explore the causes of cataract surgery rate, we carried out social practice. We visited the community hospitals and health centers in our hometown, collected data from different regions as variables, and made statistics and comparison. We concluded that due to the problems of surgical techniques and methods in underdeveloped areas at the grassroots level, the sick groups in these areas could not get the best treatment or had no chance to get it. Because of the inconvenience of transportation, the lack of necessary ophthalmic equipment in County hospitals, or the weak technical force, the shelving of ophthalmic equipment and the low level of medical services, many patients with eye diseases and cataract blindness cannot be effectively treated. Ophthalmological treatment can only be stratified according to the medical level of different regions. For example, township health centers are responsible for the previous diagnosis, screening and follow-up after surgery. Small incision non-phacoemulsification cataract surgery is carried out in underdeveloped areas at the basic level, conventional phacoemulsification is performed in municipal and county medical units, and micro-incision or femtosecond laser cataract surgery is suitable for units above the provincial level.

And relatively developed cities are also divided into regions. Surgery rates are usually higher in large hospital-intensive urban centers and economic boom areas. In contrast to the backward suburbs in the city, because of the level of surgery, many cataract patients cannot receive surgery in time. In Shanghai, for example, the average cataract surgery volume in 2012 (1921 cases) was nearly twice as large as that in tertiary hospitals.
To conclude, as of 2012, the cataract surgery rate in Shanghai still lags behind the level of social development. The low cataract surgery rate in suburbs is the main factor restricting the overall cataract surgery rate in Shanghai.

**Lack of Professionals and Unbalanced Distribution**

There are more than 24,000 ophthalmologists in China, with an average of one ophthalmologist per 50,000 people. Moreover, these ophthalmologists are mostly concentrated in cities. The battlefield of blindness prevention is mainly at the lower leveled cities and towns. In rural areas, county hospitals are the main positions of blindness prevention. However, at present, there are about 400 county hospitals having independent ophthalmology department, unable to carry out the work of prevention and treatment of blindness alone, and at the lower leveled cities and towns there is a lack of professional and technical personnel with awareness of prevention of blindness and administrative management ability.

China has a large population, of which the number of patients is considerable. In this case, the demand of ophthalmologists seems insufficient and urgent. In community hospitals such as county hospitals, it is difficult for cataract patients to get proper and timely treatment when they need it because of the lack of professional medical personnel and the lack of Ophthalmology department.

**Solutions and Suggestions**

To sum up, the factors that lead to the low coverage of cataract surgery in a certain area can be summed up as follows: economy, ideological awareness, and regional medical level. In this survey, we analyze these three dimensions through interviews, questionnaires and data collection. Specific reasons may be: (1) The elderly lack of awareness of cataracts, leading to their belief that cataracts are insignificant and do not need treatment. (2) lower leveled hospitals have no conditions to carry out cataract surgery. (3) Because of the lack of medical insurance coverage, the economic conditions of the elderly are not enough to support them to receive surgery.

According to this, medical technology is closely related to the local conditions and the development of national technology, so it is not easy to achieve short-term improvement; and ideology is usually a deep-rooted product of education, religious beliefs and life experience, so we can only do our best to improve slowly and imperceptibly by creating WeChat official accounts, holding public service speeches, delivering positive energy content. Gradually, more and more cataract knowledge will be popularized for the elderly to improve their ideas and change their concepts. However, the lack of economy can be directly relieved by the strength of the civilian population. It can be raised by the public, charity bazaars, to provide surgery for as much as possible more elderly people by supporting them on the financial side. Therefore, the group decided to focus its activities on economic assistance! As long as we keep accumulating, we can not only expand our influence and help more people, but also raise the attention of society to cataract. Gradually, problems can be improved, optimized and solved.

To improve the current situation, we need not only the due diligence of medical personnel, but also the support and action of government agencies for cataract. The government needs:

1. to improve the medical security situation in the region so that more people can be included.
2. Through advertising, online or offline education, let the elderly understand what cataract is and the importance of cataract treatment.
3. Promote regular visits to the elderly after surgery in order to prevent any late-onset diseases.
4. To improve the quality of grass-roots medical personnel, reduce misdiagnosis and improve their ability to carry out cataract surgery. Although our group Sightline cannot achieve this currently, we will try our best to expand its influence step by step. Let more people realize the seriousness of cataract and the necessity of cataract surgery, win the attention of the whole society and the government with the strength of civilians, maybe the government can take improvement measures as soon as possible!
Conclusion

To sum up, in China, the three main reasons for low cataract surgery rate are still due to economic constraints (including government subsidies, medical insurance reimbursement rates, and inadequate child support), awareness problems (lack of correct understanding of cataract and its treatment and the impact of old ideas caused by low education popularization) and technical support problems in China now. Insufficient equipment, manpower and inspection are not enough to diagnose and rescue cataracts in time. As a developing country, China is still lagging behind most other countries in cataract surgery rate, but as long as society pays attention to it, more people want to improve and solve this problem. Individual power can still affect the whole society a little.

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