The Treatment of Chronic Sinusitis in Japan

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The chronic sinusitis is well known for “an old and new disease”. It is also known as an important factor in otorhinolaryngology area. We have an old medical text book (Fig. 1) that was issued just 100 years ago, which in 1912. The sinus disease was mentioned on the 2nd chapter. 92% of the contents was concerned with the sinusitis. If we refer to this text which is written by an old fashioned writing, “Most nasal symptom is related to sinus disease”, “The greatest number of chronic cases changes from acute cases”. This is exactly same as the treatment of the chronic sinus infection that we face. A lavage care was recommended for its treatment.

The therapeutic goal of chronic sinusitis treatment is to promote sinus secretion and improve ventilation. There are two pillars of conservative medical and surgical treatment in the cure for chronic sinusitis. At the clinical spot, first of

all, conservative medical treatment is performed from the viewpoint of medical expenses, and then surgical treatment is performed to resistant cases.

One of conservative medical treatment is namely medication, lavage treatment and nebulizer treatment. The medication is mainly antibiotic medication, enzyme drug and mucus solubilizer. Antihistamine and LT antagonist are also prescribed for the example of complication of allergies case. It is famous that among the antibiotics, 14-membered ring system of macrolide works well. It has been widely spread since 1980s.

In the middle of 1990s, YAMIK catheter (Fig. 2) was hit the streets. This is made in Russia. It is the tool that pharyngeal portion and anterior nostril are packed, nasal cavity becomes one chamber. The complicated nasal cavity is pressured as one space. The syringe is connected to the channel, and then to drain pus by pumping. Lastly liquid type medication was replaced. This treatment was popular among the patients because it takes less pain in 90s or so. Although its catheter is rarely offered in markets these days.

Another pillar is Surgical treatment. It is implemented if conservative medical treatment does not work. Many

different ways of surgical treatments have been tested for the sinusitis in the history. The developed optical equipments are the solution of this issue since 1990s in Japan. ESS (Endoscopic Sinus Surgery) becomes more popular. The spread of the endoscopic sinus surgery has given many patients with chronic sinusitis remarkable improvement for the past 20 years. However, even if surgical treatment achieves initial improvement, we sometimes experience recurrent cases recently.

The circumstances are now changing as it is said “Chronic sinusitis is an old and new disease”. It comes to an agreement how an existing infectious sinusitis is treated. Recently, so-called eosinophilic sinusitis becomes a problem how it can be cured. This is recognized as new disease. On the other hand, it is reported that the treatment of upper respiratory symptom encouraged improvement in lower airway lesion. This is based on the concept of “One airway one disease” is that from upper to lower airway is as one unit.

By the way, there is the guideline of chronic sinusitis from the United States and Europe. This is classified by with or without nasal polyp. More than 80% of nasal polyp is eosinophilic in western countries. In our country, the chronic sinusitis of GL is drawn up 2007. There is no information of eosinophilic sinusitis. Recently, Japanese Rhinologic Society is taking main role of inquest of diagnostic treatment for eosinophilic sinusitis. In Europe and America, the guideline for the management of chronic sinusitis has become widespread. This guideline has classified sinusitis cases according to the existence of nasal polyps. In this guideline, Chronic Rhino Sinusitis with Nasal Polyp (CRSwNP) is what is called eosinophilic sinusitis that is easy to recur. The polyp is known to have pathologically strong eosinophil infiltration. However, in Japan, many non-eosinophilic (purulence) sinusitis is also included in the category of CRSwNP. Therefore, neither diagnosis nor treatment can be performed in accordance with the European and American guideline. Although Japanese guideline of chronic sinusitis has not worked out yet, treatment of chronic sinusitis is performed every day. What is called eosinophilic sinusitis is considered to be intractable to both medical and surgical treatment.

Recently, however, surgical treatment tends to try to intractable sinusitis cases. When we make surgical planning to these sinusitis patients with high possibility of recurrence, we have to accurately grasp their condition of disease before operation. For example we carry out peak flow management

Table 1 Treatment policy of eosinophilic Sinusitis

1) Operation (ESS)
Ethmoid, sphenoid, maxillary sinus are widely opened, and nasal deviation is corrected as needed.
Especially the treatment of around middle turbinate is key point.
Nose and nasal sinuses are formed to implement local treatment effectively after surgery.
2) Maintenance treatment is also important.
It depends on the conditions of patient that ② and ③ are added
① irrigation of nasal cavity / steroids for nasal spray.
These are basic of maintenance treatment.
② implementing of anti-allergic drug for nasal stuffiness, e.g. LT antagonist.
③ a small amount of oral steroids from a few days to 2 weeks.
3) And oral steroids are implemented for a short period for exacerbation and at the time of recrudescence. (PSL30mg is dwindled. 2 weeks)

(Ishitoya, Jpn. J. Allergol 2011)

to patients with asthmatic complication in collaboration with respiratory medicine department. It is often difficult to be treated if chronic sinusitis patients have asthma. We cooperate with department of respiratory medicine, ESS is actively implemented if conservative medical treatment does not work to sinusitis. This time we showed the case in which the improvement of asthmatic condition and PEF index were confirmed. It was valid that we monitor using PEF for the condition of asthma. From the point of view “one airway one disease”, we consider many possible cases that the treatment of sinusitis makes asthma better. We need to have diagnostic treatment for asthma even though we are not the specialists. We are carrying out according to Dr. Ishitoya’s proposal (Table 1).

These days, chronic sinusitis against conservative medical treatment is applied for an operation, nevertheless we face that many cases relapse these days. Most relapsing cases are examples of complication of asthma, ENT doctor is facing an airway lesion before the operation. In particular, PEF is used before the operation. We have a close cooperation with department of respiratory medicine for the operation. We consider that not only care for the nasal cavity, but also supporting for the respiratory tract. It does not adapt that GL of the Western countries apply for Japan. We want to have a guide line of Japan in the near future.

This time, we introduce the chronic sinusitis treatment currently performed by our department that is one of municipal hospitals, and demonstrate several problems of the chronic sinusitis treatment in Japan.