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 air-
way 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 wide-
spread. 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) sinus-
itis is also included in the category of CRSwNP. Therefore,
nor treatment can be performed in accor-
dance 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

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<th>Table 1</th>
<th>Treatment policy of eosinophilic Sinusitis</th>
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<td>1) Operation (ESS)</td>
<td>Ethmoid, sphenoid, maxillary sinus are widely opened, and nasal deviation is corrected as needed. Especially the treatment of around middle turbinat is key point. Nose and nasal sinuses are formed to implement local treatment effectively after surgery.</td>
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<td>2) Maintenance treatment is also important.</td>
<td>It depends on the conditions of patient that ① and ③ are added ① irrigation of nasal cavity / steroids for nasal spray. 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 )</td>
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(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 treat-
ment of sinusitis makes asthma better. We need to have diag-
nostic treatment for asthma even thought 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 munici-
pal hospitals, and demonstrate several problems of the chronic
sinusitis treatment in Japan.