

**A Case Study: A 7-year-old Male  
Who Refused Laser Therapy under General Anesthesia  
- Through Collaborative Work with Other Healthcare Staffs -**

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I. Introduction

One of pediatric treatments that the department of our plastic surgery practices is laser therapy used for treating dermal melanocytic nevi including aberrant mongolian spot. The difference of the treatment from the other is that it is practiced rather for a cosmetic reason than for a therapeutic reason so that the treatment is often proceeded due to requests from child's parents who are concerned about the child's well-being otherwise. A period of the treatment may take years. Numerous times of treatment can be required sometimes.

Many patients start the treatment when they are still infant and it usually is planned to complete before they start going to elementary school. Since a treatment period can be very long, treatments corresponding to the level of one's development are required over time. A 7-year-old male, K-kun, was one of those patients and eventually he started refusing to take the treatment strongly. His treatment began when he was 5 years old. He had done four treatments but started refusing from the third one. It took more than half an hour to convince him to enter a treatment room at the fourth treatment.

Children grow up everyday. As K-kun developed, it appeared that there were changes in the level of his understanding and his way of thinking that eventually led to the "rejection" toward the treatment. In our hospital, staffs of the periatric ward including hospital play specialists (hereinafter referred to as HPS) and of the surgery room work together for children and their families. A couple weeks prior to one's hospitalization, HPS staffs practice pre-surgery preparation and hospital tour for the purpose of supporting a child who is planned to stay in hospital.

Because of such work of HPS, it is assumed that children who will stay in hospital already understand their surgeries and hospitalization to a certain extent and they are more or less mentally prepared. It was, however, that the importance and necessity of individual preparation considering the developmental phase of a child for cases like K-kun who had to repeatedly undergo treatments had been overlooked. There was a discrepancy between K-kun: "I don't need the treatment anymore" and his parents: "the treatment will make his skin look better and it is for his future". The department of plastic surgery, of pediatrics, of anasthesia, the surgery room, our periatric ward and HPS worked together in this case to come up with a method to respect the feelings of both K-kun and his family regarding the treatment and decisions that eventually were made by K-kun himself. The procedure and the result are reviewed in this report.

II. Case Summary

1. Subject: K-kun (7-year old male)
2. Name of disease or symptom: Aberrant mongolian spot in his left chest
3. Treatment: Laser therapy under general anesthesia
4. Proposed frequency of treatment: 6 times in total. 4 out of 6 had been already practiced (the 1<sup>st</sup> treatment; August XXXX(year), the 2<sup>nd</sup>; October, the 3<sup>rd</sup>; December, the 4<sup>th</sup>; August XXXX)
5. Period of hospitalization for this time (for the 5<sup>th</sup> treatment): From December xx(date), XXXX(year) to December xx (three day in total).
6. Development: Appropriate for his age
7. Family members: Father, Mother, Brother (5-year old), Grandfather

8. Previous history and status: A preparation for pre-surgery was given with his mother. K-kun was not expressive and seemed very nervous. The first day of his hospitalization for the first therapy, he visited to a playroom with his mother 3 hours after the admission. Though his mother initially prodded him to play on the first day, he became used to the playroom a little by the following. He went back and forth between his room and the playroom on his own. On the day of the 1<sup>st</sup> laser therapy, he did not seem refusing to go to the therapy room though he looked nervous when he left his room. 5 hours after the therapy, he visited to the playroom with his mother and played game even with a smile on his face.  
At the 2<sup>nd</sup> therapy, though K-kun seemed relaxed as he enjoyed palying right after he admitted to hospital, he muttered “no” with a grim look when he left his room to the therapy room. He entered the therapy room while his mother was prodding him.  
At the 3<sup>rd</sup> therapy, though he was active in playing, he raised his voice and said “I’m fed up with it. Mom, you go ahead and do it!” and it took time for him to move forward. As you may see, the more he repeated the procedure, the more he was able to focus on playing, but the more aggressively he refused to take the therapy.

### III. Result

#### 1 . The 4<sup>th</sup> treatment

At the time of his admission, though he seemed a little nervous, he enjoyed creating decoration seals in the playroom to put them around his bedside. He played actively with creating seals, a toy sword, handicrafts with sea shells, and games. He requested “I want to do a lot of handicrafts” soon after he came into the playroom.

On the day of the therapy, he refused to stand up by saying “ I don’t want to do it” when a nurse came to take him to the thrapy room. He cried out in front of the thrapy room and said “ I don’t mind not having good-looking skin. It is my mum who just wants me to do it. I don’t want to do it anymore”. His mother pasuaded him by saying “I want you to do it. Please. I’ll come to pick you up right after when the therapy is over”. He barely walked into the therapy room.

When the theapy was finished, his attending doctor removed a respirator when his mother was present in the room. For that procedure, there was an agreement between the doctor and the mother beforehand. His mother was called by the doctor and she woke up K-kun. K-kun and his mother then went back to his room together. His mother later told HPS that K-kun was talikng in his delirium “I want to go to the playroom”.

On the day of leaving hospital, K-kun, his mother and HPS were talking about the current hospitalization together. During the hospitalization, K-kun made his own Kiwanis doll with a little monster face. Regarding the therapy, he said “ I just remember the time when I was playing. Otherwise I don’t remember anything. I don’t know. I don’t remember”. His mother commented “I really appreciate the doctor for letting me be with him before he woke up in the thearpy room. So I was able to keep the promise with my son. I was glad when he said to me “mum..” as he was waking up”.

#### 2 . The collaborative work of healthcare staffs for the 5<sup>th</sup> therapy

On November xx (date), XXXX (year), HPS had a talk with his attending plastic surgeon at his request regarding how we should approach to K-kun for the forthcoming treatment. HPS suggested that the attending doctor directly tell K-kun about his current status and any further treatment since his parents strongly felt the necessity of the treatment. His attending doctor mentioned that he was going to suggest K-kun’s parents to continue the treatment after taking some interval depending on the K-kun’s condition and that he would refer them a pediatrician in the same

hospital for the second opinion about K-kun's treatment.

When the parents visited the referred pediatrician, the parents told the pediatrician that nebulizer was applied to K-kun for his asthma when he was 3 years old, and since then he had refused to put on a mask. The pediatrician told K-kun's parents that it was not recommended to press K-kun to take the treatment against his will since it could affect his development. K-kun always said "I don't like the mask for anesthesia", "I don't care whether I take the therapy or not. Mum, you decide". Eventually parents decided to let K-kun take the total of 5 treatments. Though the initial schedule was 6 in total, they revised it and there would be only one more therapy left.

### 3. The 5<sup>th</sup> therapy

#### 1) Day 1 (The first day of hospitalization)

K-kun visited to the playroom right after he admitted to the hospital. He was proudly said "Hi, I came here again because there would be two more therapies for me. Well, no, it's not true. I was told that the doctor would finish everything this time even though there actually were supposed to be two times left". Regarding types of play in the playroom, he said "I want to make a cage for insects, like for beetles and grasshoppers" and he seemed highly-motivated to play.

It was however, that he became anxious when a nurse came to take him to the therapy room. He refused to stand up when he was asked to choose the scent of a mask. He said "Please ask my mum. I choose whatever she chooses". He eventually answered "Since mum said I should choose myself...I'd like (the scent of) pudding" after his mother's nudge. The attending pediatrician informed K-kun and his mother that a practice for intravenous access would be provided at 8:30 in the following morning.

When HPS was about to leave his room in the late afternoon, K-kun said to HPS with smile "Don't be late tomorrow. If you are late, I'll run back home and blow up my house. OK?". While observing K-kun who acted silly, mother told us "He has been nervous for the last few days and yes, definitely he dislikes the mask, but he was looking forward to playing in the playroom".

Further, a change in some part of procedure was informed to K-kun and his family. It was to reduce the distress of K-kun who did not like the mask for anesthesia. The revised procedure was that nurses of the therapy room, an anesthesiologist and a plastic surgeon would visit to K-kun's room in order to apply anesthetic agent to him through an intravenous drip. Later, his mother informed HPS that K-kun was very pleased about the procedure change.

#### 2) Day 2 (The day of laser therapy) :

At 8:10 a.m., right after HPS arrived, K-kun came into the playroom by saying "good morning" with a lively voice. As promised in the previous day, K-kun played a game with HPS but he seemed restless. HPS showed him a watch and told him that a straw (intravenous line) for water (intravenous drip) would be introduced to his arm at 8:30. K-kun asked to HPS "Which arm do they use?" He told HPS "I drew a picture yesterday" and showed his work (Pic. 1). He drew a rabbit that seemed being crying. K-kun explained to HPS "The color was dripped down somehow..."

During the procedure of intravenous access, K-kun was sitting on his mother's lap while having a distraction with pictorial puzzles. He did not even move during the procedure and did it well since he focused on the puzzles so well. When nurses praised him after the procedure, he smiled shyly. He then went straight back to the playroom and chose to create diorama of an insect cage before the actual laser therapy. He was not restless unlike that morning and he was happily talking about larvae of his favorite beetles (Pic. 2).

While he was making the diorama, he was called for anesthetic procedure. He went to the room in a positive manner and lay on the bed on his own. He fell asleep after the administration of sedative agents by an anesthesiologist. He was, then taken to the therapy room. After the therapy, K-kun came over the playroom with his mother. Though he was trying to continue creating diorama that he was

doing in the previous day, he was not able to do it very well since he felt pain at the radiated part of his body. Because K-kun wished to complete the diorama by the following day, HPS promised him to prepare an instruction how to make it. Then he seemed relieved and started playing a ball game.

3) Day 3 (The day of leaving the hospital) :

On the day of leaving the hospital, it seemed that K-kun could not wait for HPS arriving in the morning. He entered the playroom at the same time when HPS entered. He said to HPS “I’d better make something for my brother..” and started creating a beetle with play dough as a souvenir for his younger brother. He also played with his favorite games.

Regarding the therapy, he said to HPS “Everything was fine because there was no mask”. HPS replied to him “Well, now you completed the therapy. Thank you for your cooperation even though there were things you did not really like. I’m glad that it’s all over”. Then he looked down on the floor and said to HPS in a caring manner “But who knows? I may come back here again. I may take the therapy again”. He did not make a Kiwanis doll this time. He said to HPS “My brother will be sad if I bring back only my own doll”.

His mother reflected the present procedure and said to us “Actually we had no worries for him as we were convinced that the therapy had nothing but good consequences for him. We did not understand initially why we were required to receive the second opinion from the pediatrician. But we were stunned to hear that there would be a risk of some adverse developmental outcomes. I really appreciate that many doctors were involved in my son’s therapy and discussed the best way together. We have nothing left to desire when we leave here”. Before leaving the hospital, K-kun was reluctant to go home and wanted to continue playing games by saying “Oh, wait! I just want to play this game!” Eventually his parents gently pulled him away and left hospital together.



Picture 1. A play during hospital stay (image)



Picture 2. A play during hospital stay (image)

#### IV. Discussion

K-kun's strong rejection toward his 4<sup>th</sup> laser therapy was considered as a protest. Despite his refusal, the therapy was to be continued. Article 18 of The United Nations Convention on the Rights of the Child states that "Parents or, as the case may be, legal guardians, have the primary responsibility for the upbringing and development of the child". In Japan, the above article is interpreted as that parents have the primary responsibility for rearing a child with good intentions and parents are the ones who are to be decision-makers for the child.

In western countries however, the will of a child shall be respected except some emergency cases and any procedure can be canceled if the procedure is found against the child's will at any moment. Ogawa (2010) states that "The structure of a decision-making process in pediatric care can be complicated since there may be discrepancies in opinions among three parties (parents - a decision-maker; a health care provider - the one who performs what has been decided; and a child - a receiver of the result of the decision).

Since the laser therapy required only a short-stay in hospital (for a few days), healthcare staffs may have overlooked the will of K-kun. Further, since the therapy was a repetitive process, it was also considered that K-kun and his family had assumed they already understood the process. At the age of 5, when K-kun started his therapy, a child has a full of imagination and tends to misunderstand things easily. People around K-kun should have provided more opportunities for him to express his feelings back then.

At the 4<sup>th</sup> therapy, K-kun made a Kiwanis doll with a monster's face. He smirked when he saw his mother's shocked look and it could be his hidden desire to upset his parents at the time. One of reasons that he refused to put on a mask could be caused by a negative experience of having a nebulizer when he was 3 years old. If that information was given earlier, we could have avoided his strong rejection much earlier.

It is important for HPS to work with health care providers of other departments on a routine basis and to share acquired children's information through playing with them. For K-kun's case, because the attending plastic surgeon asked for consultation from HPS regarding the forthcoming therapy, sharing information between HPS and other departments was realized. As a consequence, each department brought up ideas for reducing K-kun's distress based on their specific knowledge and information. Eventually not only K-kun and his family but also all staffs of involved departments together overcame the situation. Considering above, one of our important roles is, therefore, to provide an opportunity for families to make an optimal decision for their child.

As a conclusion, though a series of the laser therapy was a hard experience for K-kun, he truly enjoyed his playtime in the playroom, sometimes with his family, just like any other 7-year-old child. We first met him when we provided a pre-surgery preparation. Though it was only 20minutes session, K-kun grasped the idea of the importance of self-expression and securing his own space through our introduction including information on play and showing his room in the hospital. In the end of his stay he said to HPS "I may come back here again" that can be a proof of the trust relationship between him and us. For the future, a preparation model that meets a various changes

in children's development shall be established in cooperation with other departments.

#### References

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