



WFSLMS

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World Federation of Societies for Laser Medicine and Surgery

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- **NPO WFSLMS FY2006 Business Report**

NPO WFSLMS Executive board meeting was held at March 20, 2007, reported and decided the undermentioned agenda.

1. Activity Report FY2006

- 1) A diode laser machine was bought at a low price (420,000yen) using the donation (450,000yen) from the “Japanese Supporting Association for Dioxin Handicapped Children in Viet Nam”, and donated to Peace Village in Viet Nam.
- 2) There is an ongoing project at Ohshiro clinic to accept and train a medical doctor from Thailand.
- 3) An allowance of 10,000 yen a month for lunch fee is donated to this doctor for three months.

2. Activity Plan FY2007

- 1) The more aggressive activity should be carried out in 2007.
Donate a laser machine at least a year to developing countries.
Accept medical doctors or technicians for training as laser specialists.
The above were unanimously decided at the Executive board meeting. Funds need to be collected money at least one million yen (preferably three million yen). The meeting discussed on how to collect contributions from laser associations around the world and decided to ask Japan Society for Laser Surgery and Medicine, JSLSM, for assistance.
- 2) It was unanimously voted to collect contributions from the members of JSLSM at the 28th Annual meeting planned to be held September, 2007.
- 3) It was suggested to include the schedule of both domestic and foreign laser congresses in JSLSM journal.
- 4) A project was proposed that WFSLMS license people working in countries without laser

licenses. The license will be given when the doctors take the safety education seminar and pass the examination. It was discussed and unanimously voted that the tentative seminar would be conducted in ISLSM held at November 2007 in Italy.

- **Official Establishment of “Society for Blood Saving”**

“Society for Blood Saving” was established officially resulting from Blood Saving Campaign.

- **Beginning of reborn association, “Japanese Society for Laser Reproduction”**

Japanese Society of Laser Reproduction (JaSLaR) was reborn as an academic society at the second meeting at March 4th, 2007. JaSLaR has shifted from society for scientific study. Toshio Ohshiro and Isao Miyakawa were elected President and Vice President. Six obstetricians and gynecologists, and three urologists were elected as directors.

The second meeting finished successfully with 106 participants including 61 doctors.

History of JaSLaR

- April/2/06: The 1st Meeting Program of Japanese Society of Laser Reproduction

<Program>

Open Remarks

Toshio Ohshiro, President of JaSLaR

Lecture of President

Low reactive-Level Laser Treatment

Lecturer: Toshio Ohshiro, President of JaSLaR

Clinical Reports

1. Infertility treatment using Low reactive-Level Laser

Lecturer: Hidehisa Iwahata, President of Otemachi Iwahata Clinic

2. Introduction and Effect of Low reactive-Level Laser for Refractory infertility patients

Lecturer: Toshihisa Iwahata, President of Kanuki Iwahata Clinic

3. Two cases where Laser Treatment was effective in Jo Clinic

Lecturer: Jo Tosyun, President of Jo Clinic

4. Experience using Low reactive-Level Laser Treatment for infertility in Ohshiro Clinic

Lecturer: Shuniji Fujii, Vice president of Medical corporation of Keikoh-kai Ohshiro Clinic

Special Lecture

Countermeasure for COS low responders

Lecturer: Bunpei Ishizuka, Professor of Dept. of Obstetrics and Gynecology, St. Marianna University School of Medicine

Hands-on session

Practice of LLLT with Diode Laser

Lecturer: Toshio Ohshiro, President of JaSLaR

Discussion

Chairpersons: Isao Tanabe, Editorial Board Member of Asahi Shimbun

Shuetsu Suzuki, Honorary director of Ginza Women's Clinic

Special Comment from the standpoint of Immunology

Lecturer: Ko Okumura, Professor of Immunology, Juntendo University School of Medicine

<From Abstract>

Experience using Low reactive-Level Laser Treatment for infertility in Ohshiro Clinic

Shunji Fujii¹, Takafumi Ohshiro¹, Katsumi Sasaki¹, Toshio Ohshiro²

1: Medical corporation of Keikoh-kai Ohshiro Clinic 2: Japan Medical Laser Laboratory

The recent trend of older age marriage and hence older child bearing age has increased the demand for infertility treatment, and is being socially recognized. In earlier years treatment of infertility consisted of medical surgical correction of any physical disorders of the reproductive organs in conjunction with ART, however recent patients require treatments for impaired function of the organs due to age. Tests to confirm impaired function exists but there are very few therapies that increase ovarian function.

At Ohshiro we have used LLLT for the treatment of female infertility since 1996. During the first five years (1996 to 2000), we used LLLT for patients from a single institution (old project) and since 2000 opened the treatment for all (new project). As of January 2006, we have treated 465 patients (old and new project combined) and have achieved 99 pregnancies. We take this opportunity to report our ten-year experience of treating female infertility with LLLT, compare and contrast differences between the old and new projects. We will share a few cases and would like comments from the attending specialists concerning poor responders, ovarian blood flow and laser therapy.

- March/4/07: The 2nd Meeting Program of Japanese Society of Laser Reproduction at the new hospital wing, School of Medicine, Keio University

<Program>

Open Remarks

Toshio Ohshiro, President of JaSLaR

Message from the Dean

Yasuo Ikeda, Dean of School of Medicine, Keio University

Lecture of President

Present status of laser therapy and application to reproductive function

Chairperson: Hiroyuki Kuramoto, Honorary Professor, Kitazato University School of Medicine

Lecturer: Toshio Ohshiro, President of JaSLaR

Educational Lecture1

Potential of laser therapy for premature ovarian failure

Chairperson: Bunpei Ishizuka, Professor of Dept. of Obstetrics and Gynecology, St. Marianna University School of Medicine

Lecturer: Isao Miyakawa, Honorary Professor, Oita University Faculty of Medicine

Educational Lecture2

Improvement of blood circulation to ovarium

Chairperson: Masato Inoue, President of Sanno Hospital and Professor of International University of Health and Welfare

Lecturer: Yumi Nagata, President of IVF Nagata Clinic

Educational Lecture3

Countermeasure for male infertility except ART

Chairperson: Kiyoshi Kobanawa, Director of Tsukuba ART center

Lecturer: Hiromichi Ichikawa, Professor of Urology Dept. of Tokyo Dental College Ichikawa General Hospital

Workshop, Laser assisted hatching

Chairperson: Yasuhisa Araki, President of The Institute of Advanced Reproductive Medical Technology Center

Chairperson: Syunichi Sato, Assistant professor of Dept. of Biomedical Information Sciences, National Defense Medical College Research Institute

Tsuyoshi Hashiba, Dept. of Obstetrics and Gynecology, School of Medicine, Keio University

Hirobumi Kamiya, President of Kamiya ladies clinic

Kenichiro Hiraoka, Embryogenic technician, Kinutani Women's Clinic

Tatsuhiko Tomiyama, President of Osaka NewART clinic

Luncheon Seminar,

Introduction of new therapeutic instrument ~ NeckIrradiator ~

Chairperson: Tatsuo Nakajima, Professor of Dept. of Plastic Surgery, School of Medicine, Keio University

Lecturer: Toshio Ohshiro, President of JaSLaR

Laser Safety Education Seminar

Chairperson: Takafumi Ohshiro, Vice president of Medical corporation of Keikoh-kai Ohshiro Clinic

Lecturer: Tunenori Arai, Professor of Dept. Applied Physics and Physico-Informatics, Faculty of Science and Technology, Keio University

Clinical Reports

Application of LLLT for infertility treatment

Chairperson: Yushi Takehara, Kato Ladies Clinic

1. Hidehisa Iwahata, President of Otemachi Iwahata Clinic
2. Toshihisa Iwahata, President of Kanuki Iwahata Clinic
3. Shuniji Fujii, Vice president of Medical corporation of Keikoh-kai Ohshiro Clinic
4. Hideko Tamura, President of Tamura Hideko Ladies Clinic
5. Yumi Nagata, President of IVF Nagata Clinic

Special Lecture

Prospect of infertility prevention

Chairperson: Shuetsu Suzuki, Honorary president of Ginza Women's Clinic

Lecturer: Harumi Kubo, Board chairperson of NPO Japan Reproductive Health Association and Honorary professor of the first Dept. of Gynecology, medical Dept. of Toho University

Invited Lecture,

Light effects on spermatozoa and fertilization

Chairperson: Isao Miyakawa, Honorary Professor, Oita University Faculty of Medicine

Lecturer: Rachel Lubart, Professor of Bar-Ilan University, Israel

Closing Remarks

Isao Miyakawa, Honorary Professor, Oita University Faculty of Medicine

<From Abstract>

Clinical Reports: Application of LLLT for infertility treatment Hidehisa Iwahata, *President of Otemachi Iwahata Clinic*

Low reactive-level laser therapy uses photobiological activation. It is reported to improve blood flow, enhance wound healing, eliminate edema and pain. Our clinic adopted low reactive-level laser, OhLase HT2001, from March 2005 with expectation that these effects could improve the pregnancy rate of infertility patients. I will report the results of laser therapy for refractory and middle age infertility patients.

Laser was irradiated for four points: both sides of the neck, a point one third between the xiphoid process and navel from the navel, the mid point between navel

and pubis, one minute for each point.

The number and average age of patients treated were 40 and 36.2 ± 10.2 . The number and average age of patient who didn't receive laser treatment was 159 and 32.7 ± 15.3 at our clinic in 2006.

Pregnancy rate is 52.5% for laser group and 39.6% for non laser group.

According to age brackets, the pregnancy rates for laser patients younger than 30, 30 to 34, 35 to 39, and over 40 are 33.3%, 80.0%, 50.0%, and 36.4% respectively. The pregnancy rates for non laser group for the same age bracket are 48.5%, 42.0%, 35.4%, 11.1% respectively.

Among the 50 patients receiving ART between January and December 2006, 14 pregnancies were confirmed in patient receiving LLLT of the time of ova collection and subsequent fresh or frozen embryo transfer.

9 pregnancies were confirmed not receiving LLLT during the ova collection cycle.

Pregnancy rates didn't differ between 46.7% and 45.0% respectively. The average age of pregnancy for laser treated patients is 34.2, and for non laser patients is 34.9 which also showed no difference.

The pregnancy rate of 53.5% for laser treated patients was high, in comparison to non-treated patients.

The pregnancy rate is high in groups over 30 years old and especially for those over 40 years old where treatment becomes more difficult. Therefore it can be presumed that the pregnancy was due to improved quality of the ovum caused by laser therapy in this older age group where ovarian response is considered to deteriorate. However in the ART group, there's no difference between the laser and non-laser group and from our data we cannot be sure whether laser had any effect or pregnancy.

Our clinic has no thermographic equipments. The means to confirm the therapeutic effect is through measure of blood flow of ovarian artery or stromal artery by transvaginal ultra sonography. However this is cumbersome to incorporate as a routine examination and the results cannot be used as concrete for correct indices. We hope for future development of testing blood flow more easily.