

< Press Release >

Aderans

-- Aderans Industry-Academia Collaboration --
Aderans co-hosts a luncheon seminar at the
122nd Annual Congress of Japan Surgical Society
Presenting study results on prevention of hair loss from chemotherapy

Aderans Co., Ltd. (Head Office: Shinjuku-ku, Tokyo, Japan; Group CEO, Representative Director, and President: Yoshihiro Tsumura), promoting the wellness industry of hair, beauty, and health on a global scale, co-hosted a luncheon seminar at the 122nd Annual Congress of Japan Surgical Society, which was held at Kumamoto-Jo Hall (Kumamoto City, Kumamoto) from Thursday, April 14 to Saturday, April 16, 2022.

We took thorough measures to prevent COVID-19 infections at the venue by limiting the number of seats in the room to avoid crowds, requiring each participant to wear a mask and use hand sanitizer, keeping the room ventilated, and checking the participants' health status. At the same time, we also livestreamed the event to enable more participants to watch the seminar from anywhere.

The seminar took place on Friday, April 15, during the annual congress and was co-hosted by Aderans. Dr. Yohei Kono (Aderans research partner; Assistant Professor, Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine; Advanced Trauma, Emergency and Critical Care Center) and Dr. Kanae Taruno (Associate Professor, Division of Breast Surgical Oncology, Department of Surgery, Showa University School of Medicine; Assistant Director, Department of Breast Surgery, Showa University Hospital) gave lectures while Dr. Masafumi Inomata (Professor, Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine) served as moderator.

Japan Surgical Society implements projects to contribute to the advancement and promotion of surgery by becoming a platform for research communication, knowledge exchange, and alliance among the society members as well as with relevant academic societies within and outside Japan. It is a general incorporated association consisting of over 40,000 members across Japan, aiming to contribute to the health and welfare of people by facilitating the development of academic culture and improvement of surgical care.

The 122nd annual congress was held under the theme "The Future of Surgery." It was the second time for Aderans to co-host the event.



From left: Dr. Taruno, Dr. Inomata, and Dr. Kono

As a leading company in the field of total hair solutions, Aderans actively engages in hair-related research through industry-academia collaboration, such as research and development of functional artificial hair and medical wigs, research related to hair growth and hair scalp care, and research on prevention of chemotherapy-induced alopecia (CIA). Through these efforts, we strive to develop “product excellence,” which is one of our management philosophies, and facilitate the development of the hair-related industry.

We believe that disseminating the findings of our industry-academia joint research through academic conferences in Japan and overseas, and having the results of our studies presented by researchers across the world, will further advance the hair industry. Ultimately, such initiatives will contribute to solving hair problems facing many people and help us fulfill our corporate social responsibility (CSR).

■ Aderans Luncheon Seminar: Lectures Overview

Moderator

Dr. Masafumi Inomata

Professor

Department of Gastroenterological and Pediatric Surgery, Oita University Faculty of Medicine

Lecture 1

Mechanism of chemotherapy-induced alopecia (CIA) and development of preventive measures: Industry-academia collaboration on prevention of CIA

Speaker: Dr. Yohei Kono

Assistant Professor, Department of Gastroenterological and Pediatric Surgery,

Oita University Faculty of Medicine

Advanced Trauma, Emergency and Critical Care Center

[Introduction]

In today's world, with advancements in cancer treatment, an increasing number of cancer patients engage in social activities while continuing to receive treatment. Cancer treatments such as surgery, chemotherapy, and radiation therapy often change patients' appearance, which has a significant impact on their mental health and QOL (Quality of Life). In recent years, there has been a growing attention to the importance of care that addresses appearance-related symptoms, and we are learning more about the current conditions and challenges. In particular, alopecia often occurs as a side effect of chemotherapy for breast cancer and various other malignant diseases. Dr. Kono introduced an industry-academia collaborative research project he and his team had engaged in to find solutions to CIA.

[Research project]

1. Basic research on the mechanism of CIA

Using animal models for CIA with anti-cancer chemotherapy drug cyclophosphamide, the research team conducted a histopathological examination of changes around their hair follicles. The team identified an increase in vascular permeability around hair follicles as one of the factors behind CIA.

2. Research and development of preventive agents for alopecia using alpha-lipoic acid (ALA) derivatives

The team applied ALA derivatives, which are suitable for external use as their antioxidant activity remains strong in the air, to the skin of the CIA models and found that the derivatives would prevent hair loss. The team also conducted a histopathological examination and found reductions in inflammatory cell infiltration as well as in damage to hair roots and hair shafts.

3. Clinical research on the effects of ALA derivatives on CIA

The team conducted multicenter clinical research with 100 breast cancer patients receiving adjuvant chemotherapy to examine the effects of ALA derivatives. They applied lotion with 1% ALA derivatives to their scalps and found its facilitative effect on hair regrowth.

4. Product development through industry-academia collaboration

Through the industry-academia joint project with the leading hair company, the team has contributed to the launch of scalp lotion containing ALA derivatives based on their CIA research.

[Prevention of CIA: moving forward]

This research project keeps moving forward by, for example, expanding the application of ALA derivatives to gastrointestinal cancer patients and examining the effects of combined use with scalp cooling. Further research and development in the field is expected in order to enhance patients' QOL.



Dr. Kono giving the lecture

Lecture 2

Efforts to prevent alopecia induced by perioperative chemotherapy for breast cancer:

What can we do to prevent permanent chemotherapy-induced alopecia (pCIA)?

Speaker: Dr. Kanae Taruno

Associate Professor, Division of Breast Surgical Oncology, Department of Surgery,
Showa University School of Medicine

Assistant Director, Department of Breast Surgery, Showa University Hospital

While chemotherapy-induced alopecia (CIA) does not affect human life itself, it can lead to significant psychological distress among patients. It is one of the serious side effects that have an impact on patients' daily lives due to changes in their appearance and psychological effects. This side effect therefore has much greater significance than many healthcare professionals assume.

In particular, hair loss occurs in 100% of the patients receiving standard perioperative chemotherapy for breast cancer, which can affect their treatment decisions due to the psychological burden resulting

from this side effect. CIA also has a significant and long-term effect on patients' QOL far beyond the treatment period. It takes time for hair to grow back after the chemotherapy. Also, according to a report in the UK, 10.1 to 23.3% of the patients using taxane-based regimens experience permanent CIA (pCIA). While it can be difficult for healthcare professionals to detect pCIA because of the effective use of wigs after chemotherapy, a large number of patients may have concerns about pCIA. Despite various efforts, complete CIA prevention for breast cancer patients remains a challenge. Nevertheless, it is essential to reduce CIA and to prevent pCIA through care during the treatment.

In the “Appearance Care Guidelines in Cancer Treatment” published in 2021, the item on CIA suggests the use of a scalp cooling system to prevent and reduce CIA, limited to breast cancer patients receiving perioperative chemotherapy. In March 2019, the Paxman Scalp Cooling System was approved as a medical device in Japan, as it had been reported to prevent hair loss associated with chemotherapy by cooling the scalp and reducing its blood flow during the treatment. Dr. Taruno spoke about some patients who had used the System during perioperative chemotherapy for breast cancer at the hospital she worked for. Since the patients had also used lotion containing alpha-lipoic acid (ALA) derivatives along with the System, she also discussed the possibility of synergetic effects and the way forward.



Dr. Taruno giving the lecture

Overview of the Conference

Title : The 122nd Annual Congress of Japan Surgical Society
Dates : Thursday, April 14 to Saturday, April 16, 2022 (physical meetings)
Venue : Kumamoto-Jo Hall (Kumamoto City, Kumamoto)
President : Dr. Hideo Baba

Director, Kumamoto University Hospital
Professor, Department of Gastroenterological Surgery,
Graduate School of Medical Sciences, Kumamoto University

* The seminar co-hosted by Aderans was held on Friday, April 15.

< Media Inquiries >

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