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Effect of combination treatment with Lactobacillus rhamnosus and corticosteroid in reducing airway inflammation in a mouse asthma model

發表於Journal of Microbiology Immunology and Infection雜誌

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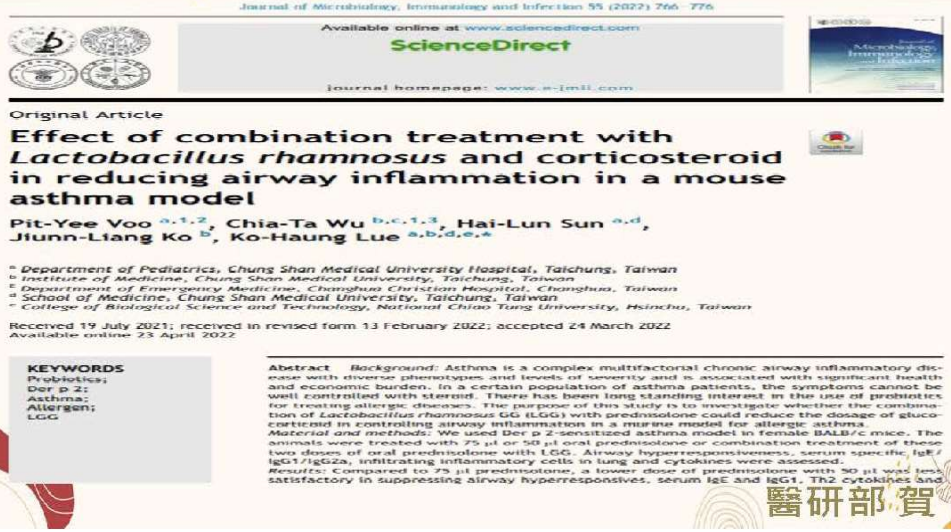
Impact Factor 10.273



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Original Article

Effect of combination treatment with *Lactobacillus rhamnosus* and corticosteroid in reducing airway inflammation in a mouse asthma model

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KEYWORDS
Probiotics;
Der p 2;
Asthma;
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LGG

Abstract *Background:* Asthma is a complex multifactorial chronic airway inflammatory disease with diverse phenotypes, and levels of severity and is associated with significant health and economic burden. In a certain population of asthma patients, the symptoms cannot be well controlled with steroid. There has been long standing interest in the use of probiotics for treating allergic diseases. The purpose of this study is to investigate whether the combination of *Lactobacillus rhamnosus* GG (LGG) with prednisolone could reduce the dosage of glucocorticoid in controlling airway inflammation in a murine model for allergic asthma. *Material and methods:* We used Der p 2-sensitized asthma model in female BALB/c mice. The animals were treated with 75 μl or 50 μl oral prednisolone or combination treatment of these two doses of oral prednisolone with LGG. Airway hyperresponsiveness, serum specific IgE/IgG1/IgG2a, infiltrating inflammatory cells in lung and cytokines were assessed. *Results:* Compared to 75 μl prednisolone, a lower dose of prednisolone with 50 μl was less satisfactory in suppressing airway hyperresponsives, serum IgE and IgG1, Th2 cytokines and

醫研部 賀

賀 內分泌暨新陳代謝科

楊宜瑱 主任

GLP-1RAs for ischemic stroke prevention in patients with type 2 diabetes without established atherosclerotic cardiovascular disease

發表於 Diabetes Care 雜誌

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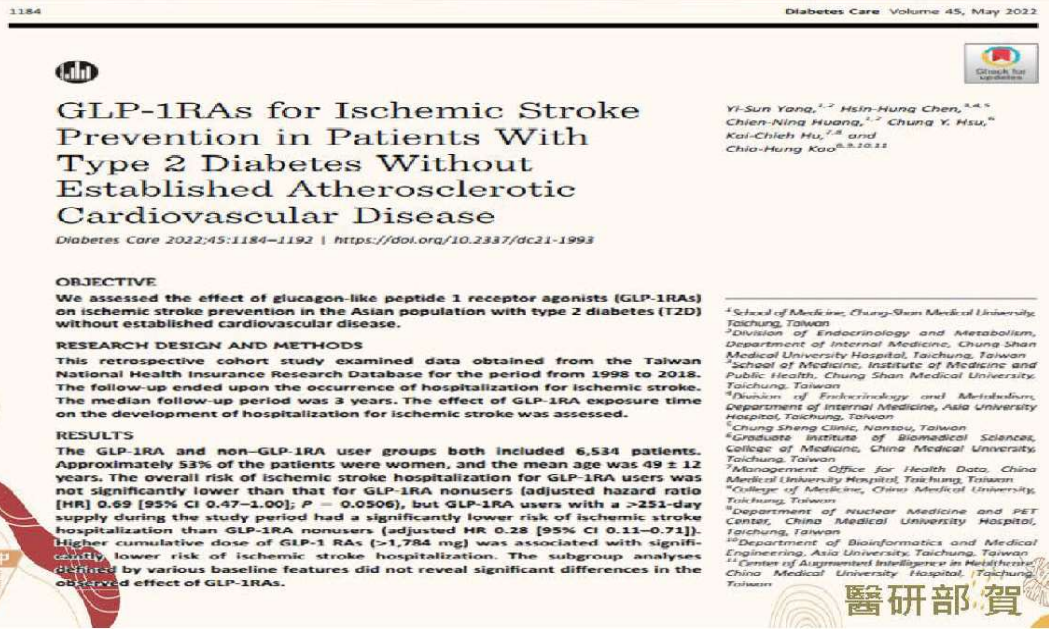

GLP-1RAs for Ischemic Stroke Prevention in Patients With Type 2 Diabetes Without Established Atherosclerotic Cardiovascular Disease

Yi-Sun Yang,[1,2] Hsin-Hung Chen,[3,4,5] Chien-Ning Huang,[1,2] Chung Y. Hsu,[6] Kai-Chieh Hu,[7,8] and Chia-Hung Kao[8,9,10,11]

Diabetes Care 2022;45:1184–1192 | https://doi.org/10.2337/dc21-1993

OBJECTIVE

We assessed the effect of glucagon-like peptide 1 receptor agonists (GLP-1RAs) on ischemic stroke prevention in the Asian population with type 2 diabetes (T2D) without established cardiovascular disease.

RESEARCH DESIGN AND METHODS

This retrospective cohort study examined data obtained from the Taiwan National Health Insurance Research Database for the period from 1998 to 2018. The follow-up ended upon the occurrence of hospitalization for ischemic stroke. The median follow-up period was 3 years. The effect of GLP-1RA exposure time on the development of hospitalization for ischemic stroke was assessed.

RESULTS

The GLP-1RA and non–GLP-1RA user groups both included 6,534 patients. Approximately 53% of the patients were women, and the mean age was 49 ± 12 years. The overall risk of ischemic stroke hospitalization for GLP-1RA users was not significantly lower than that for GLP-1RA nonusers (adjusted hazard ratio [HR] 0.69 [95% CI 0.47–1.00]; $P = 0.0506$), but GLP-1RA users with a >251-day supply during the study period had a significantly lower risk of ischemic stroke hospitalization than GLP-1RA nonusers (adjusted HR 0.28 [95% CI 0.11–0.71]). Higher cumulative dose of GLP-1 RAs (>1,784 mg) was associated with significantly lower risk of ischemic stroke hospitalization. The subgroup analyses defined by various baseline features did not reveal significant differences in the observed effect of GLP-1RAs.

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張基晟 主任

Association of Smoking With Patient Characteristics and Outcomes in Small Cell Lung Carcinoma, 2011-2018

發表於 **JAMA Network Open** 雜誌

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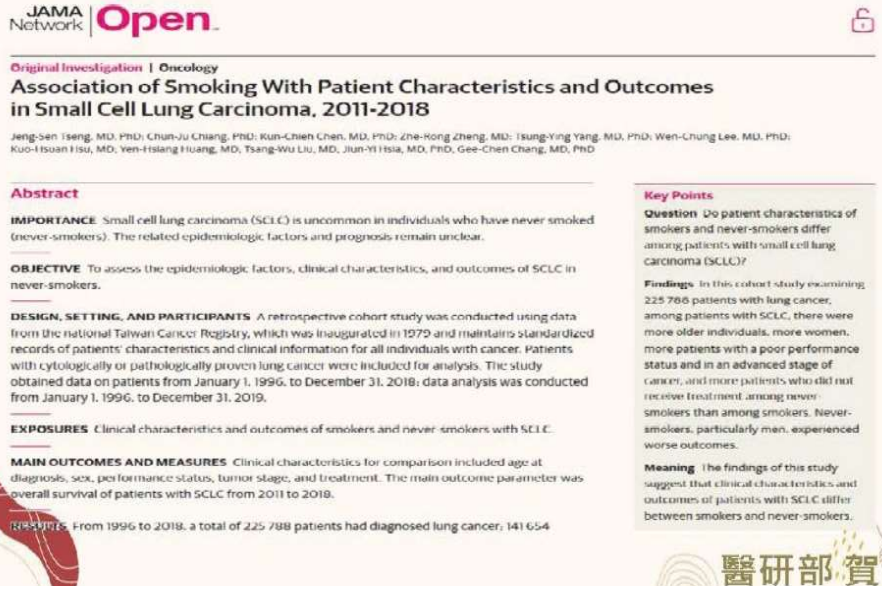

JAMA Network | Open

Original Investigation | Oncology

Association of Smoking With Patient Characteristics and Outcomes in Small Cell Lung Carcinoma, 2011-2018

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Abstract

IMPORTANCE Small cell lung carcinoma (SCLC) is uncommon in individuals who have never smoked (never-smokers). The related epidemiologic factors and prognosis remain unclear.

OBJECTIVE To assess the epidemiologic factors, clinical characteristics, and outcomes of SCLC in never-smokers.

DESIGN, SETTING, AND PARTICIPANTS A retrospective cohort study was conducted using data from the National Taiwan Cancer Registry, which was inaugurated in 1979 and maintains standardized records of patients' characteristics and clinical information for all individuals with cancer. Patients with cytologically or pathologically proven lung cancer were included for analysis. The study obtained data on patients from January 1, 1996, to December 31, 2018; data analysis was conducted from January 1, 1996, to December 31, 2019.

EXPOSURES Clinical characteristics and outcomes of smokers and never-smokers with SCLC.

MAIN OUTCOMES AND MEASURES Clinical characteristics for comparison included age at diagnosis, sex, performance status, tumor stage, and treatment. The main outcome parameter was overall survival of patients with SCLC from 2011 to 2018.

RESULTS From 1996 to 2018, a total of 225 788 patients had diagnosed lung cancer; 141 654

Key Points

Question Do patient characteristics of smokers and never-smokers differ among patients with small cell lung carcinoma (SCLC)?

Findings In this cohort study examining 225 788 patients with lung cancer, among patients with SCLC, there were more older individuals, more women, more patients with a poor performance status and in an advanced stage of cancer, and more patients who did not receive treatment among never-smokers than among smokers. Never-smokers, particularly men, experienced worse outcomes.

Meaning The findings of this study suggest that clinical characteristics and outcomes of patients with SCLC differ between smokers and never-smokers.

醫研部 賀

賀 醫學研究部

魏正宗 副院長

Efficacy and safety of brodalumab, an anti-IL17RA monoclonal antibody, in patients with axial spondyloarthritis: 16-week results from a randomised, placebo-controlled, phase 3 trial

發表於 **Annals of the Rheumatic Diseases** 雜誌

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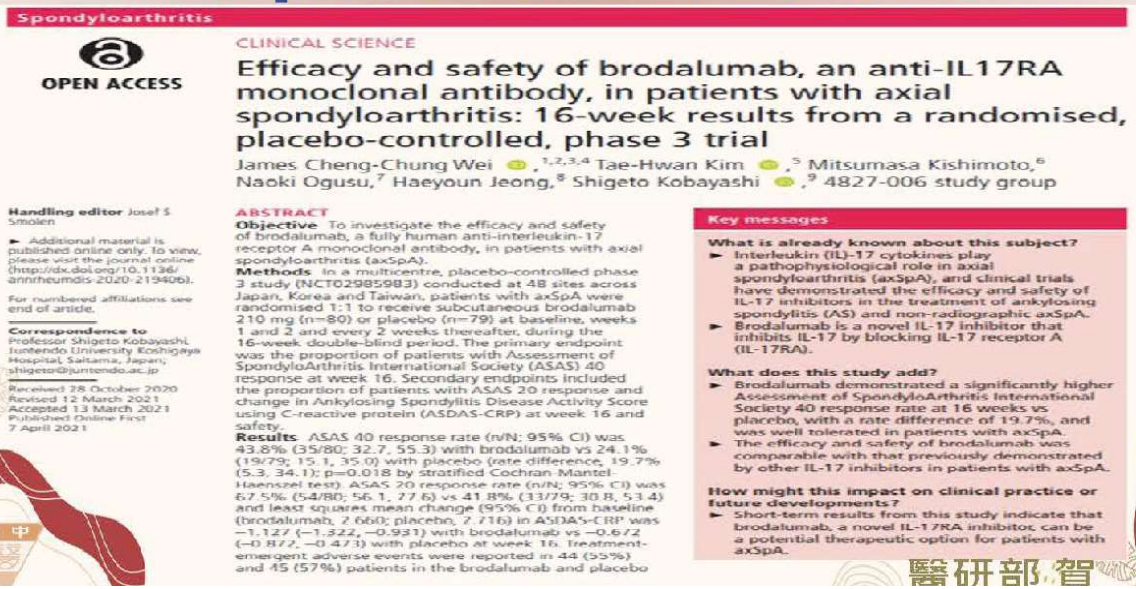

Spondyloarthritis

OPEN ACCESS

CLINICAL SCIENCE

Efficacy and safety of brodalumab, an anti-IL17RA monoclonal antibody, in patients with axial spondyloarthritis: 16-week results from a randomised, placebo-controlled, phase 3 trial

James Cheng-Chung Wei [1,2,3,4] Tae-Hwan Kim [5] Mitsumasa Kishimoto,[6] Naoki Ogusu,[7] Haeyoun Jeong,[8] Shigeto Kobayashi [9] 4827-006 study group

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ABSTRACT

Objective To investigate the efficacy and safety of brodalumab, a fully human anti-interleukin-17 receptor A monoclonal antibody, in patients with axial spondyloarthritis (axSpA).

Methods In a multicentre, placebo-controlled phase 3 study (NCT02985983) conducted at 48 sites across Japan, Korea and Taiwan, patients with axSpA were randomised 1:1 to receive subcutaneous brodalumab 210 mg (n=80) or placebo (n=79) at baseline, weeks 1 and 2 and every 2 weeks thereafter, during the 16-week double-blind period. The primary endpoint was the proportion of patients with Assessment of SpondyloArthritis International Society (ASAS) 40 response at week 16. Secondary endpoints included the proportion of patients with ASAS 20 response and change in Ankylosing Spondylitis Disease Activity Score using C-reactive protein (ASDAS-CRP) at week 16 and safety.

Results ASAS 40 response rate (n/N; 95% CI) was 43.8% (35/80; 32.7, 55.3) with brodalumab vs 24.1% (19/79; 15.1, 35.0) with placebo (rate difference, 19.7% (5.3, 34.1); p=0.018 by stratified Cochran-Mantel-Haenszel test). ASAS 20 response rate (n/N; 95% CI) was 67.5% (54/80; 56.1, 77.6) vs 41.8% (33/79; 30.8, 53.4) and least squares mean change (95% CI) from baseline (brodalumab, 2.660; placebo, 2.716) in ASDAS-CRP was −1.127 (−1.322, −0.931) with brodalumab vs −0.672 (−0.872, −0.471) with placebo at week 16. Treatment-emergent adverse events were reported in 44 (55%) and 45 (57%) patients in the brodalumab and placebo

Key messages

What is already known about this subject?
- Interleukin (IL)-17 cytokines play a pathophysiological role in axial spondyloarthritis (axSpA), and clinical trials have demonstrated the efficacy and safety of IL-17 inhibitors in the treatment of ankylosing spondylitis (AS) and non-radiographic axSpA.
- Brodalumab is a novel IL-17 inhibitor that inhibits IL-17 by blocking IL-17 receptor A (IL-17RA).

What does this study add?
- Brodalumab demonstrated a significantly higher Assessment of SpondyloArthritis International Society 40 response rate at 16 weeks vs placebo, with a rate difference of 19.7%, and was well tolerated in patients with axSpA.
- The efficacy and safety of brodalumab was comparable with that previously demonstrated by other IL-17 inhibitors in patients with axSpA.

How might this impact on clinical practice or future developments?
- Short-term results from this study indicate that brodalumab, a novel IL-17RA inhibitor, can be a potential therapeutic option for patients with axSpA.

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