Atomy Him

Amber, Lee / CPO
ATOMY HQ

Factores de riesgo para la salud de los seres humanos modernos

Estrés

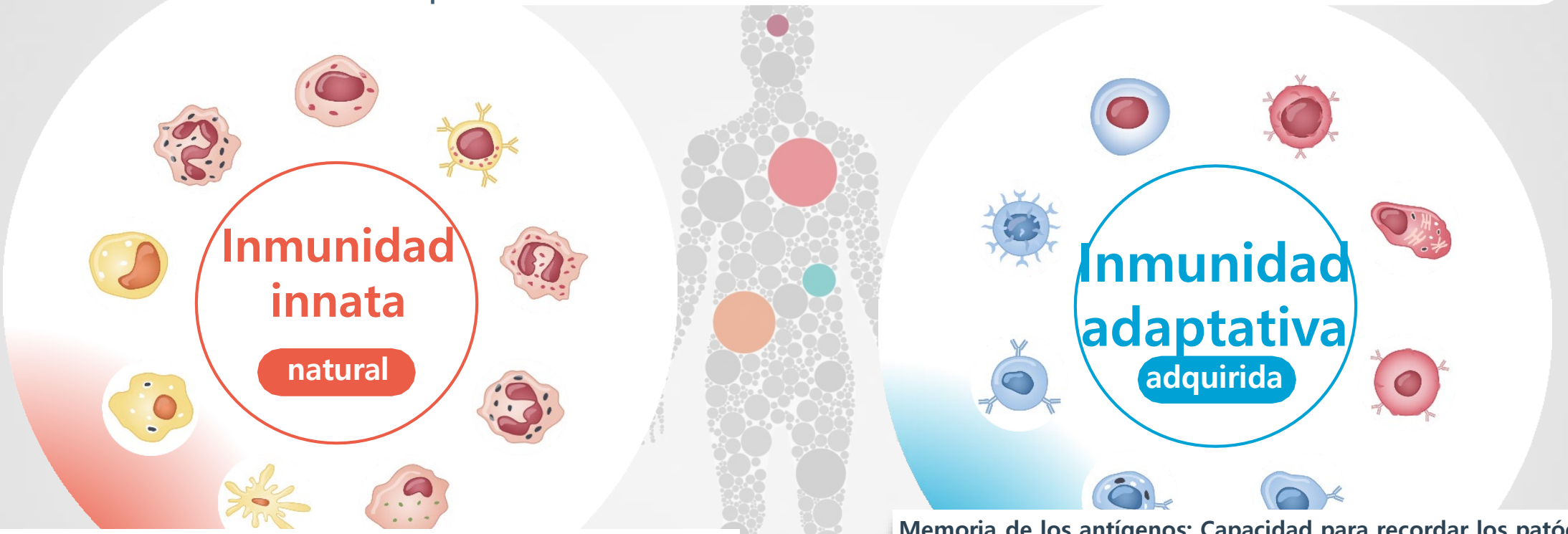
Especies reactivas de oxígeno (radicales libres)

Disminución de la función inmunológica

Obesidad

Qué es la inmunidad? Inmunidad innata y adaptativa

- La inmunidad es el fenómeno mediante el cual el organismo defiende su entorno interno frente a factores externos.
- Se trata del estado en el que un organismo presenta una fuerte resistencia frente a patógenos específicos o toxinas.



Piel y tracto digestivo: Barreras físicas como las membranas mucosas y las secreciones de moco.

Órganos inmunológicos: Ganglios linfáticos, amígdalas, bazo, y el enrojecimiento (respuesta inflamatoria).

Células inmunitarias: Complejos del sistema de complemento, macrófagos, linfocitos

(glóbulos blancos), interferones.

Responde de forma inmediata/Detiene y elimina las infecciones/No tiene capacidad de memoria frente a los patógenos.

Memoria de los antígenos: Capacidad para recordar los patógenos que han invadido previamente el cuerpo.

Producción de anticuerpos: Creación de proteínas que neutralizan o eliminan patógenos.

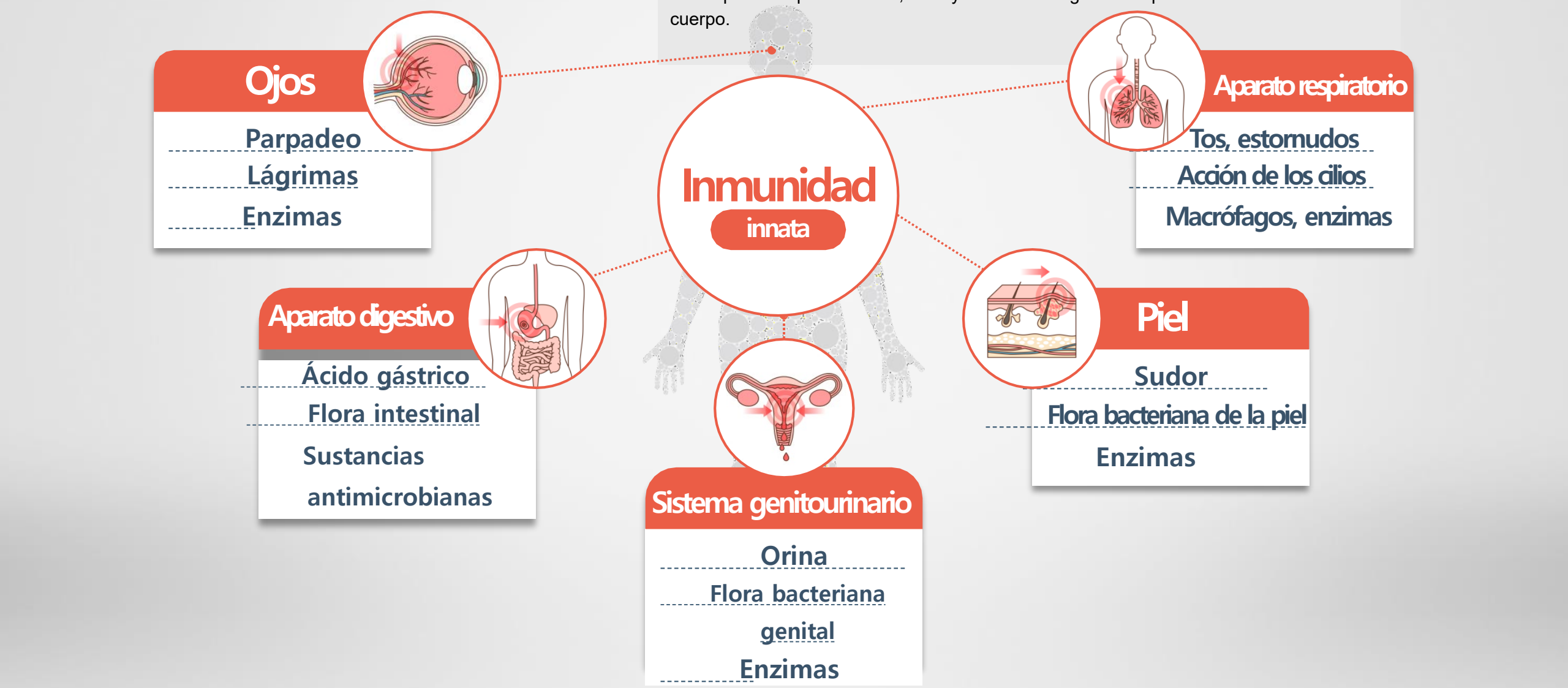
Respuesta específica en futuras infecciones: Respuesta rápida y eficaz cuando el patógeno invade nuevamente.

Refuerza la inmunidad innata al mejorar la respuesta frente a infecciones recurrentes.

Responde de forma gradual/Elimina las infecciones/Tiene memoria inmunológica, lo que le permite recordar los patógenos para futuras respuestas más rápidas.

Inmunidad de primera línea
Inmunidad innata

Inmunidad de las mucosas y otras funciones:
La inmunidad de las mucosas y los anticuerpos IgA juegan un papel crucial.
Los anticuerpos IgA, que son un tipo de inmunoglobulina formada por proteínas, se secretan en las superficies mucosas y se unen a los patógenos invasores, neutralizando las respuestas que bacterias, virus y otros microorganismos pueden causar en nuestro cuerpo.



Inmunidad Adaptativa
Inmunidad Adquirida

Secreción de citoquinas por los linfocitos T, eliminación de células infectadas, activación de macrófagos, células asesinas naturales (NK, por sus siglas en inglés: Natural Killer)

Producción de anticuerpos por los linfocitos B.
Los anticuerpos existen en los fluidos corporales como inmunoglobulinas.

Sistema inmunológico del cuerpo humano

Procesos inmunológicos

(Etapas de la respuesta inmune)

Factores ambientales que disminuyen la inmunidad

atomy

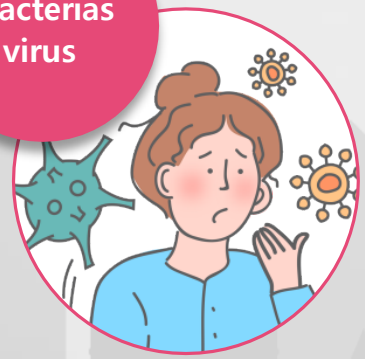
Obesidad / diabetes

Estrés

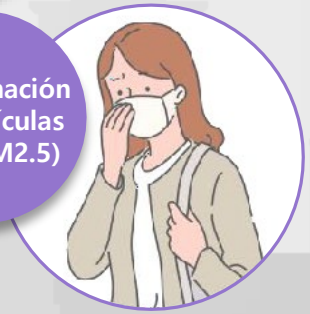
Fatiga crónica

Envejecimiento

Bacterias y virus



Contaminación por partículas finas (PM2.5)



Falta de ejercicio

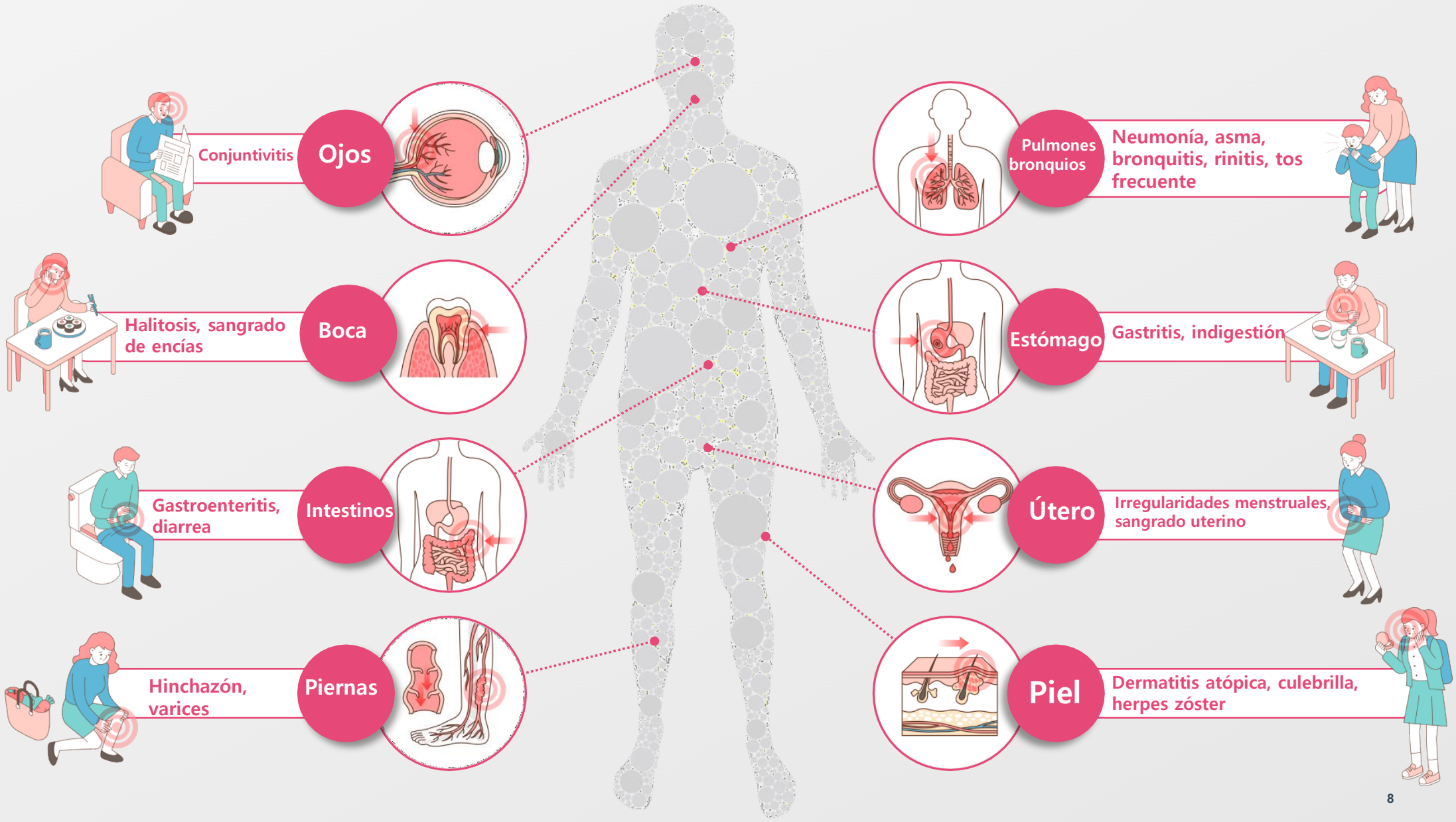
Fumar

Alimentos procesados

Falta de sueño

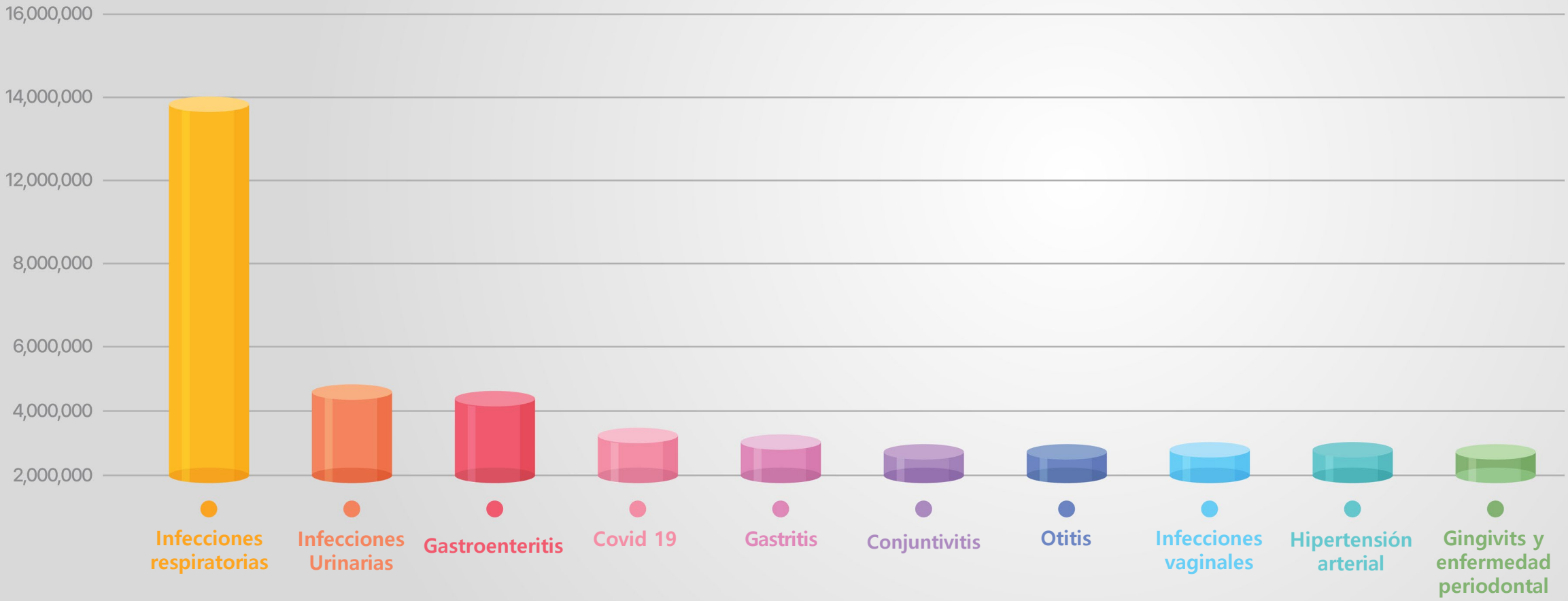
Consumo excesivo de alcohol

Síntomas que aparecen cuando la inmunidad disminuye



Prevalencia de las principales enfermedades en México

(a partir del 2020)



Fuente: Anuario de Morbilidad, Secretaría de Salud (Anuario de Morbilidad 1984-2020)'

ATOMY HIM

Atomy Him : Doble Función para mejorar la inmunidad y reducir la fatiga

Efectos del Angélica gigas

1. Efectos en enfermedades femeninas
2. Ayuda a la regularidad intestinal
3. Mejora la circulación sanguínea
4. Salud cerebral (función cognitiva)
5. Prevención de la anemia
6. Otros efectos

Efectos del Paeonia Japonica

1. Analgésico natural
2. Ayuda a la recuperación de energía y a la irregularidad menstrual
3. Beneficioso para la salud gástrica
4. Mejora la función hepática de desintoxicación
5. Salud cardiovascular: inhibición de trombos, dilatación de vasos sanguíneos
6. Mejora la inmunidad

Efectos del Cnidium officinale

1. Mejora la circulación sanguínea
2. Regulación de hormonas femeninas - Ayuda con el estrógeno, dolor menstrual e irregularidad menstrual
3. Estimula la producción de sangre y favorece la lactancia
4. Efecto analgésico
5. Salud del cabello y cuero cabelludo
6. Efecto calmante - Alivio de la depresión
7. Control de la presión arterial

HEMO HIM

Primera adquisición en Corea de un ingrediente reconocido individualmente con doble funcionalidad para mejorar la inmunidad y la fatiga

Resultados de pruebas en humanos de Atomy HIM como ingrediente funcional

- Activación de células NK (Natural Killer)
- Activación de citoquinas
- Activación de células inmunitarias
- Mejora de la fatiga

Productos Atomy para la función inmunitaria - Atomy HIM

INFORMED CHOICE

- Puede ayudar a mejorar la función inmunitaria
- Puede ayudar a mejorar la fatiga

Mezda de disolventes

Polifenoles

Polisacáridos

Mezda de disolventes

Número de publicaciones relacionadas

(a septiembre de 2024)

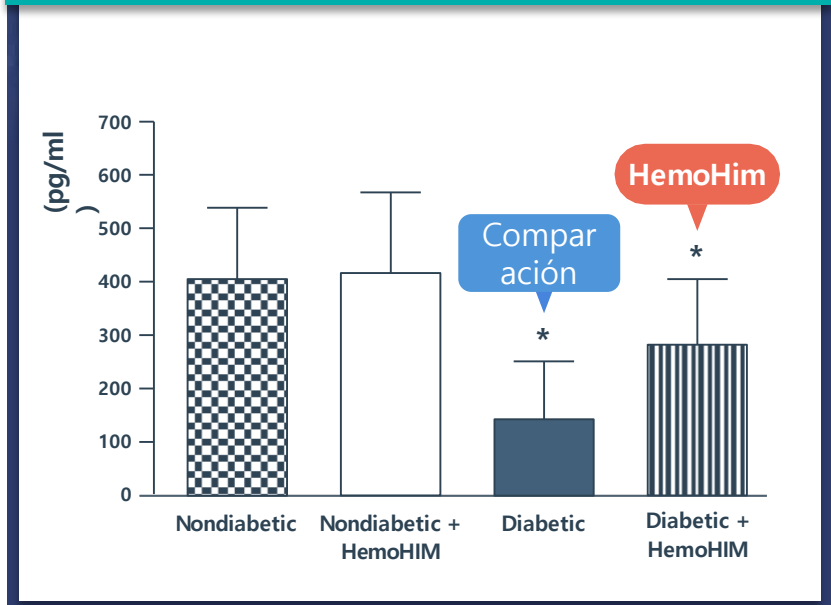
Total: 36 publicaciones

20 artículos en revistas científicas de nivel SCI

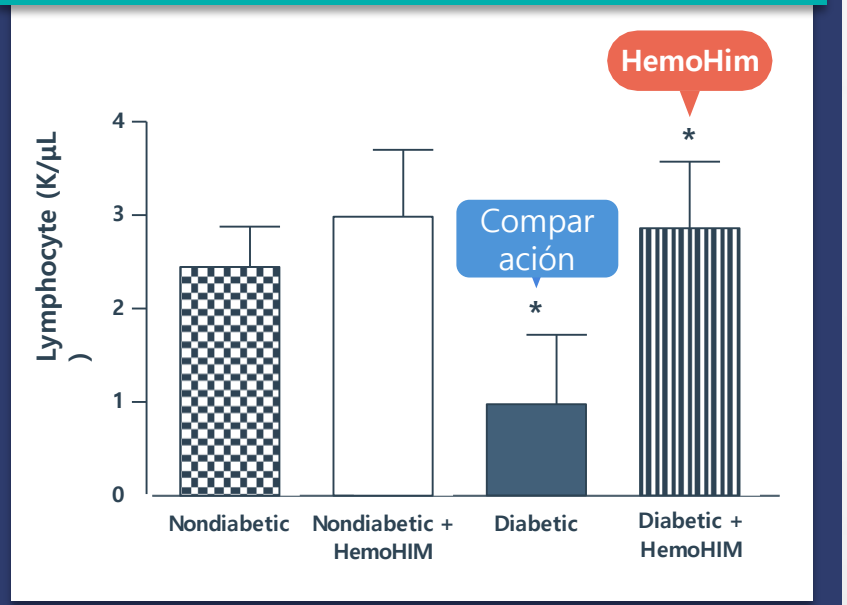
Número	Funcionalidad	Número de publicaciones
1	Mejora de la inmunidad	14
2	Mejora de la fatiga	4
3	Antiinflamatorio	4
4	Salud de la piel	3
5	Anticancerígeno	2
6	Antioxidante	1
7	Antiadiposidad	1
8	Antidiabetes	1
9	Salud gástrica	1
10	Salud hepática	1
11	Función cognitiva/memoria	1
12	Otros	3

Efectos inmunorreguladores y antidiabéticos de una formulación estandarizada de Angélica gigas, Paeonia Japonica y Cnidium officinale

Nivel de insulina en las células beta del páncreas



Aumento de linfocitos



Hindawi Publishing Corporation
Evidence-Based Complementary and Alternative Medicine
Volume 2014, Article ID 461685, 8 pages
http://dx.doi.org/10.1155/2014/461685

Research Article

Immunomodulatory and Antidiabetic Effects of a New Herbal Preparation (HemoHIM) on Streptozotocin-Induced Diabetic Mice

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Academic Editor: Cheng-Rui Li

HemoHIM (a new herbal preparation of three edible herbs: *Angelica gigas* Nakai, *Cnidium officinale* Makino, and *Paeonia japonica* Miyabe) was developed to protect immune, hematopoietic, and self-renewal tissues against radiation. This study determined whether or not HemoHIM could alter hyperglycemia and the immune response in diabetic mice. Both nondiabetic and diabetic mice were orally administered HemoHIM (100 mg/kg) once a day for 4 weeks. Diabetes was induced by single injection of streptozotocin (STZ, 200 mg/kg, i.p.). In diabetic mice, HemoHIM effectively improved hyperglycemia and glucose tolerance compared to the diabetic control group as well as elevated plasma insulin levels with preservation of insulin staining in pancreatic β-cells. HemoHIM treatment restored thymus weight, white blood cells, lymphocyte numbers, and splenic lymphocyte populations ($CD4^+$ T and $CD8^+$ T), which were reduced in diabetic mice, as well as IFN-γ production in response to Con A stimulation. These results indicate that HemoHIM may have potential as a glucose lowering and immunomodulatory agent by enhancing the immune function of pancreatic β-cells in STZ-induced diabetic mice.

1. Introduction

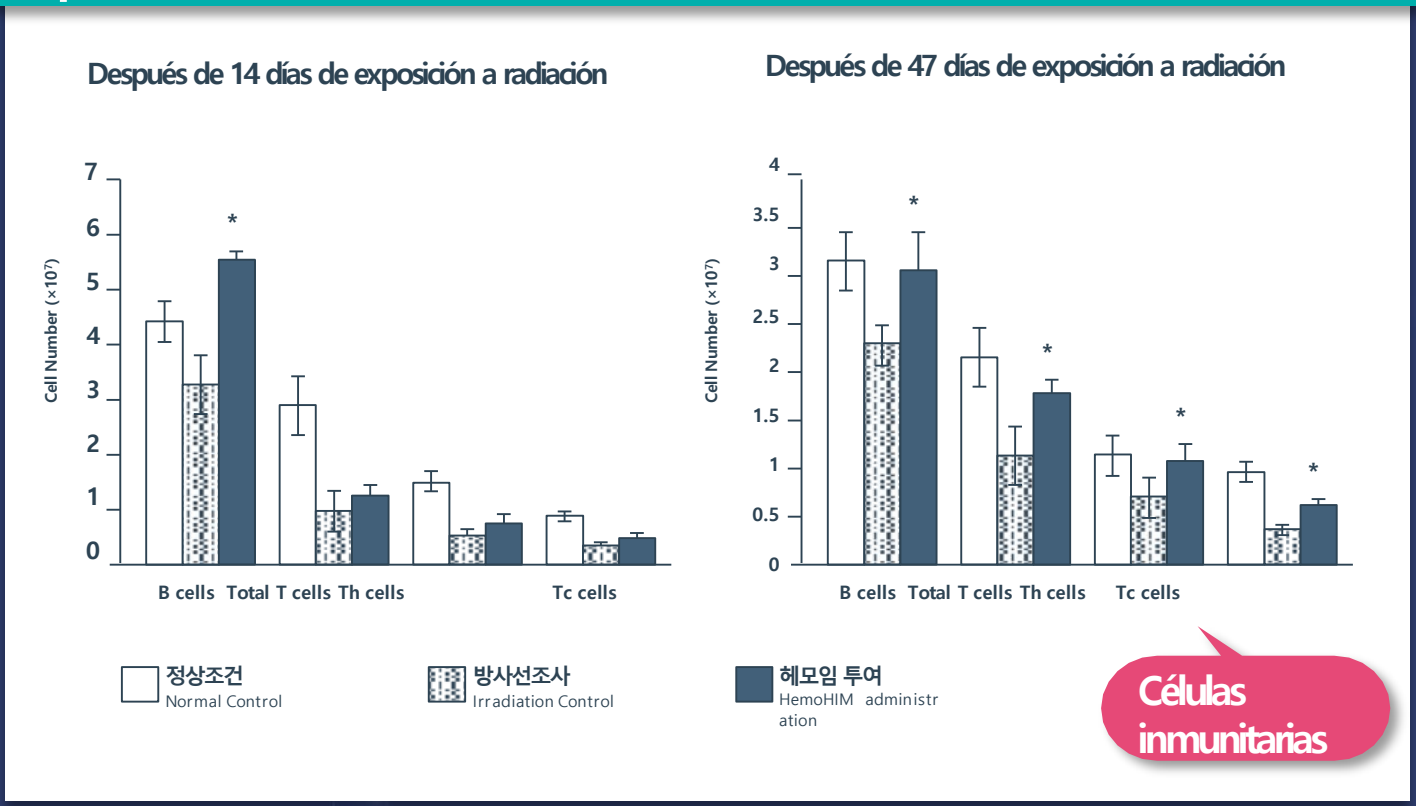
Diabetes mellitus (DM) is one of the leading causes of morbidity and mortality worldwide [1]. Increases in the aging population, consumption of calorie-rich diets, obesity, and sedentary lifestyle have led to a tremendous surge in the number of diabetics [2]. Likewise, incidence of diabetes in Korea has increased rapidly in the past 10 years, becoming the 4th leading cause of death [3].

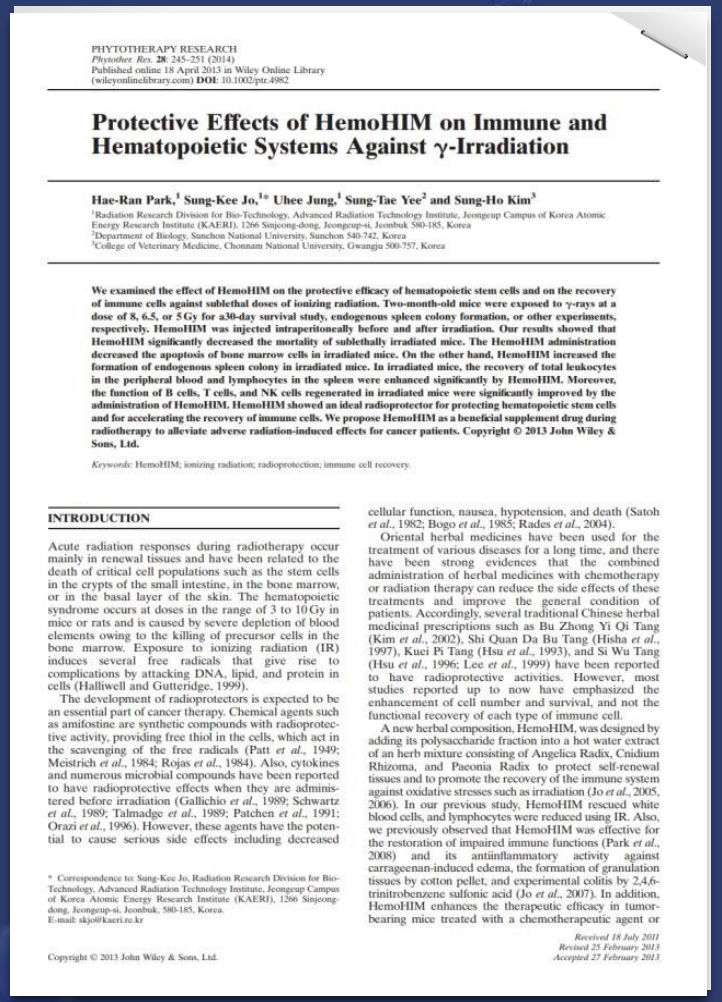
Type 1 DM results from the selective destruction of insulin-producing β-cells in pancreatic islets, and it is primarily a T cell-mediated autoimmune disease directed against one or more β-cell autoantigens [4, 5]. This state is characterized by limited weight gain, polyuria, polydipsia, and polyphagia attributed to the decreased capability of insulin to stimulate glucose uptake and utilization in target tissues due to insulin resistance, insulin insufficiency, and changes in other factors such as glucagon, thyroxin, glucocorticoid, and catecholamines [1].

A number of studies on oral antihyperglycemic agents derived from plants used in traditional Oriental medicine have been conducted, and many of the plants were found to have good activity [6]. The World Health Organization (WHO) has also recommended the evaluation of plants' effectiveness whenever safe modern drugs are unavailable [7]. This has led to an increased demand for research on natural products with antidiabetic activity as well as minimal to no side effects [8]. Unfortunately, complete therapy for DM and its complications has not been established yet.

Efecto protector de las células inmunitarias frente a la exposición a radiación

Efecto protector de las células inmunitarias frente a la exposición a radiación





PHYTOTHERAPY RESEARCH
Phytother. Res. **28**: 245–251 (2014)
Published online 18 April 2013 in Wiley Online Library
(wileyonlinelibrary.com) **DOI**: 10.1002/ptr.4982

Protective Effects of HemoHIM on Immune and Hematopoietic Systems Against γ-Irradiation

Hae-Ran Park,[1] Sung-Kee Jo,[1]* Uhee Jung,[1] Sung-Tae Yee[2] and Sung-Ho Kim[3]

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We examined the effect of HemoHIM on the protective efficacy of hematopoietic stem cells and on the recovery of immune cells against sublethal doses of ionizing radiation. Two-month-old mice were exposed to γ-rays at a dose of 8, 6.5, or 5 Gy for a30-day survival study, endogenous spleen colony formation, or other experiments, respectively. HemoHIM was injected intraperitoneally before and after irradiation. Our results showed that HemoHIM significantly decreased the mortality of sublethally irradiated mice. The HemoHIM administration decreased the apoptosis of bone marrow cells in irradiated mice. On the other hand, HemoHIM increased the formation of endogenous spleen colony in irradiated mice. In irradiated mice, the recovery of total leukocytes in the peripheral blood and lymphocytes in the spleen were enhanced significantly by HemoHIM. Moreover, the function of B cells, T cells, and NK cells regenerated in irradiated mice were significantly improved by the administration of HemoHIM. HemoHIM showed an ideal radioprotector for protecting hematopoietic stem cells and for accelerating the recovery of immune cells. We propose HemoHIM as a beneficial supplement drug during radiotherapy to alleviate adverse radiation-induced effects for cancer patients. Copyright © 2013 John Wiley & Sons, Ltd.

Keywords: HemoHIM; ionizing radiation; radioprotection; immune cell recovery.

INTRODUCTION

Acute radiation responses during radiotherapy occur mainly in renewal tissues and have been related to the death of critical cell populations such as the stem cells in the crypts of the small intestine, in the bone marrow, or in the basal layer of the skin. The hematopoietic syndrome occurs at doses in the range of 3 to 10 Gy in mice or rats and is caused by severe depletion of blood elements owing to the killing of precursor cells in the bone marrow. Exposure to ionizing radiation (IR) induces several free radicals that give rise to complications by attacking DNA, lipid, and protein in cells (Halliwell and Gutteridge, 1999).

The development of radioprotectors is expected to be an essential part of cancer therapy. Chemical agents such as amifostine are synthetic compounds with radioprotective activity, providing free thiol in the cells, which act in the scavenging of the free radicals (Patt *et al.*, 1949; Meistrich *et al.*, 1984; Rojas *et al.*, 1984). Also, cytokines and numerous microbial compounds have been reported to have radioprotective effects when they are administered before irradiation (Gallichio *et al.*, 1989; Schwartz *et al.*, 1989; Talmadge *et al.*, 1989; Patchen *et al.*, 1991; Orazi *et al.*, 1996). However, these agents have the potential to cause serious side effects including decreased cellular function, nausea, hypotension, and death (Satoh *et al.*, 1982; Bogo *et al.*, 1985; Rades *et al.*, 2004).

Oriental herbal medicines have been used for the treatment of various diseases for a long time, and there have been strong evidences that the combined administration of herbal medicines with chemotherapy or radiation therapy can reduce the side effects of these treatments and improve the general condition of patients. Accordingly, several traditional Chinese herbal medicinal prescriptions such as Bu Zhong Yi Qi Tang (Kim *et al.*, 2002), Shi Quan Da Bu Tang (Hisha *et al.*, 1997), Kuei Pi Tang (Hsu *et al.*, 1993), and Si Wu Tang (Hsu *et al.*, 1996; Lee *et al.*, 1999) have been reported to have radioprotective activities. However, most studies reported up to now have emphasized the enhancement of cell number and survival, and not the functional recovery of each type of immune cell.

A new herbal composition, HemoHIM, was designed by adding its polysaccharide fraction into a hot water extract of an herb mixture consisting of Angelica Radix, Cnidium Rhizoma, and Paeonia Radix to protect self-renewal tissues and to promote the recovery of the immune system against oxidative stresses such as irradiation (Jo *et al.*, 2005, 2006). In our previous study, HemoHIM rescued white blood cells, and lymphocytes were reduced using IR. Also, we previously observed that HemoHIM was effective for the restoration of impaired immune functions (Park *et al.*, 2008) and its antiinflammatory activity against carrageenan-induced edema, the formation of granulation tissues by cotton pellet, and experimental colitis by 2,4,6-trinitrobenzene sulfonic acid (Jo *et al.*, 2007). In addition, HemoHIM enhances the therapeutic efficacy in tumor-bearing mice treated with a chemotherapeutic agent or

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Prevención y Recuperación de Daños pora Radiación

Efectos protectores sobre el sistema inmunológico y hematopoyético tras irradiación con rayos gamma

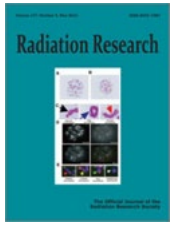
Research Article

Protective Effects of HemoHIM on Immune and Hematopoietic Systems Against γ-Irradiation

Hae-Ran Park, Sung-Kee Jo, Uhee Jung, Sung-Tae Yee, Sung-Ho Kim

First published: 18 April 2013 | https://doi.org/10.1002/ptr.4982 | Citations: 8

Efectos inmunológicos protectores de Atomy HIM contra la irradiación



(HemoHIM Ameliorates the Persistent Down-Regulation of Th1-like Immune Responses in Fractionated γ-Irradiated M ice by Modulating the IL-12p70-STAT4 Signaling Pathway)

Radiation Research, 177(5):676-684 (2012)

Efecto protector de Atomy HIM en el daño intestinal por radiación

(Protective Effect of an Herbal Preparation (HemoHIM) on Ra diation-Induced Intestinal Injury in Mice)

J Med Food 12 (6) 2009, 1353-1358

1. Bloqueo de la apoptosis (muerte celular programada) en las células de la médula ósea
2. Activación de las células inmunitarias en el bazo
3. Linfocitos B, linfocitos T y células NK (natural killer)

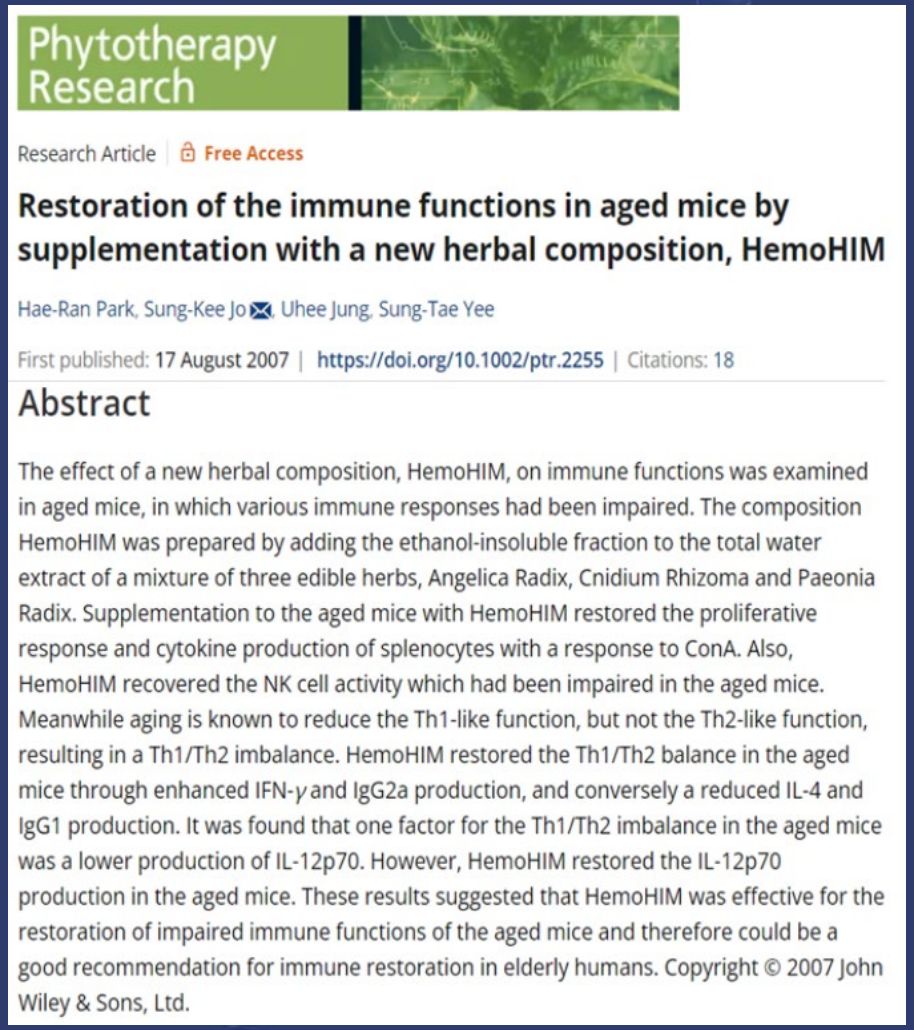
Las células NK (natural killer) aumentan en el grupo tratado con HemoHIM

Se espera que, en pacientes con cáncer sometidos a radioterapia, pueda bloquear efectos secundarios asociados y favorecer una recuperación más rápida

Efecto de mantenimiento de la función inmunitaria en personas de edad avanzada

1. Restauración de la activación de células NK y la producción de citoquinas.
2. Los linfocitos T se transforman en un estado de equilibrio
3. Aumento de la concentración de IL-12 p70, que disminuye con la edad
4. Activación de la función de las células T linfocíticas residuales

Incluso en personas de edad avanzada se puede esperar la activación de células inmunitarias innatas residuales y de linfocitos T



Phytotherapy Research

Research Article | Free Access

Restoration of the immune functions in aged mice by supplementation with a new herbal composition, HemoHIM

Hae-Ran Park, Sung-Kee Jo, Uhee Jung, Sung-Tae Yee

First published: 17 August 2007 | https://doi.org/10.1002/ptr.2255 | Citations: 18

Abstract

The effect of a new herbal composition, HemoHIM, on immune functions was examined in aged mice, in which various immune responses had been impaired. The composition HemoHIM was prepared by adding the ethanol-insoluble fraction to the total water extract of a mixture of three edible herbs, Angelica Radix, Cnidium Rhizoma and Paeonia Radix. Supplementation to the aged mice with HemoHIM restored the proliferative response and cytokine production of splenocytes with a response to ConA. Also, HemoHIM recovered the NK cell activity which had been impaired in the aged mice. Meanwhile aging is known to reduce the Th1-like function, but not the Th2-like function, resulting in a Th1/Th2 imbalance. HemoHIM restored the Th1/Th2 balance in the aged mice through enhanced IFN-γ and IgG2a production, and conversely a reduced IL-4 and IgG1 production. It was found that one factor for the Th1/Th2 imbalance in the aged mice was a lower production of IL-12p70. However, HemoHIM restored the IL-12p70 production in the aged mice. These results suggested that HemoHIM was effective for the restoration of impaired immune functions of the aged mice and therefore could be a good recommendation for immune restoration in elderly humans.

Mejora de la fatiga

Phytomedicine Plus 2 (2022) 100372

Contents lists available at ScienceDirect

Phytomedicine Plus

journal homepage: www.sciencedirect.com/journal/phytomedicine-plus

Effect of herbal preparation HemoHIM on fatigue level and exercise performance: A randomized, placebo-controlled, double-blind, and parallel clinical trial

Ji-won Seo [a], Jun Hyun Bae [b], Shu Jiang [a], Chaeyoung Shin [a], Soyoung Ahn [a], Yunho Sung [a], Donghyun Kim [a], Seul-Ki Kim [c], Hak Sung Lee [c], Wook Song [a,d,e,*]

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[b] Institute of Sports & Arts Convergence, Inha University, Incheon, Korea

ABSTRACT

Introduction: The herbal preparation HemoHIM, which is a mixture of traditional Korean medicinal plants, has been proven effective in enhancing exercise performance and reducing fatigue levels in mice. Therefore, this study aimed to evaluate the effect of HemoHIM on fatigue levels and exercise performance in healthy human adults.

Methods: Ninety-six adults with fatigue were recruited for this study. In visit 1, maximal oxygen consumption was measured using a cycle ergometer test to assess eligibility. Participants were randomly assigned to the HemoHIM group (HG, $n = 48$) or the placebo group (PG, $n = 48$) in visit 2. Each participant consumed HemoHIM or a placebo twice per day for 8 weeks and visited the laboratory four times. Body composition, vital signs, dietary intake, fatigue level (fatigue severity scale, [FSS]), cardiorespiratory endurance, muscle strength, blood biomarkers, and adverse events were measured at each visit.

Results: HemoHIM significantly decreased the FSS scores compared to that of the PG at visit 3 (P=.019); this decrease was maintained until visit 4 (P=.002). The exercise distance to exhaustion in the HG significantly increased compared to that
immediately after the ergo
P=.036, creatinine P=.002)
Conclusion: This study demo
findings may have potential
Trial registration: This study

2.6.2. Clinical laboratory test

Blood and urine were obtained in a fasting condition. Blood tests included the following: complete blood count (white blood cell, red blood cell, hemoglobin, hematocrit, platelet, mean corpuscular volume, mean corpuscular hemoglobin, and mean corpuscular hemoglobin concentration), differential count (neutrophils, eosinophils, basophils, lymphocytes, and monocytes), and aspartate aminotransferase, alanine aminotransferase, glucose, creatinine, blood urea nitrogen, total protein, albumin, total bilirubin, alkaline phosphatase, and uric acid levels. The urine tests included: specific gravity, pH, and nitrite, protein, glucose, ketone, urobilinogen, and bilirubin levels.

3.3.2. Cl oratory tests

There no linically significant change in the results of the blood and urine te

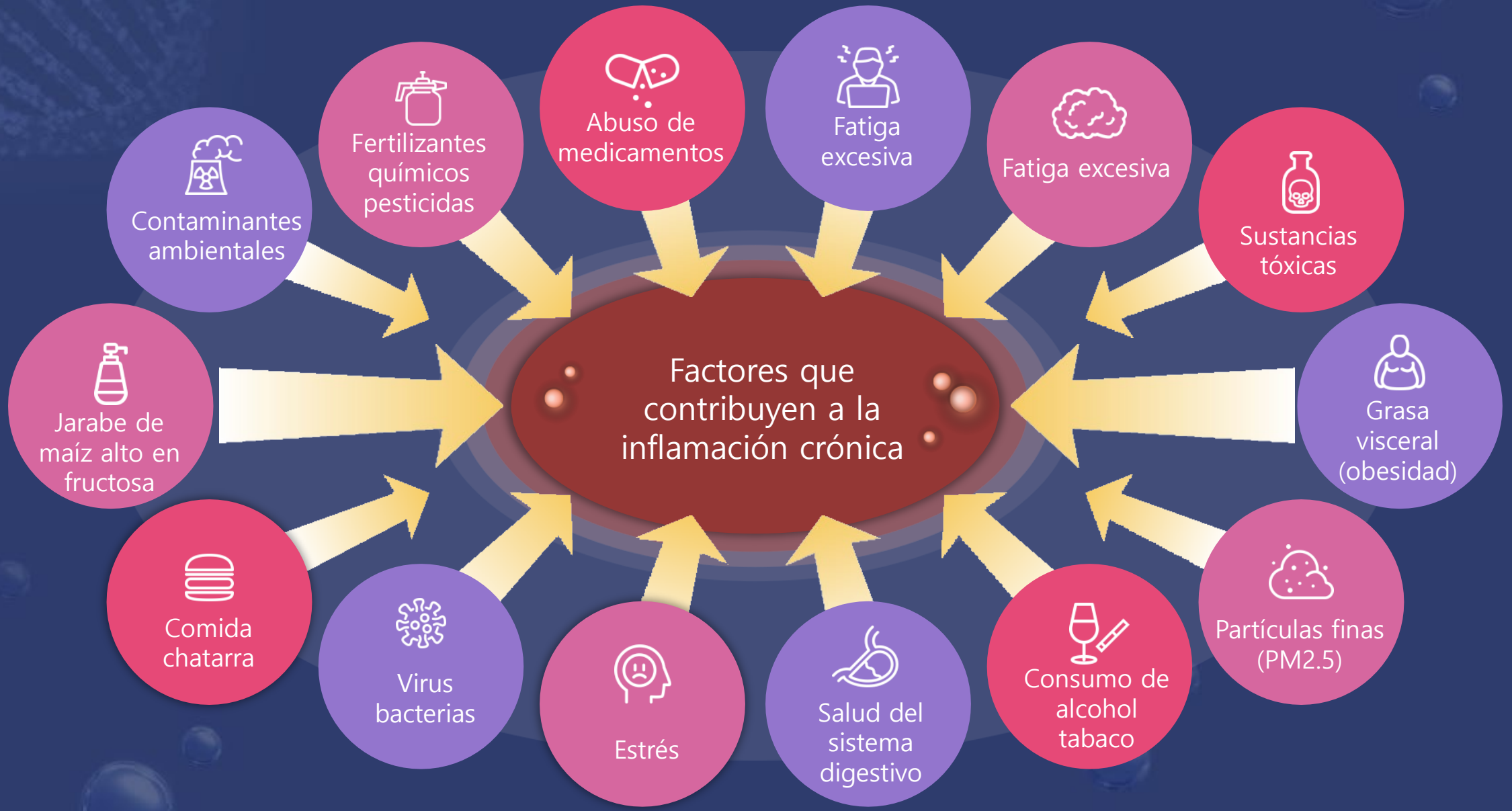
3.3.3.

No

No se observan efectos secundarios, incluyendo toxicidad hepática.

Atomy Him reduce los niveles de fatiga y mejora la resistencia física

La acción antiinflamatoria de Atomy Him



Efectos antiinflamatorios

Efecto de Atomy Him sobre la reducción de la inflamación respiratoria

HemoHIM, a herbal preparation, alleviates airway inflammati on caused by

cigarette smoke and lipopolysaccharide

Lab Anim Res 2017: 33(1), 40-47

Efecto protector de Atomy Him sobre el daño de la mucosa gástrica

(Protective effects of a standardized extract (HemoHIM) using indomethacin- and ethanol/HCl-induced gastric mucosal inju ry models)

PHARMACEUTICAL BIOLOGY 2019, VOL. 57, NO. 01, 543-549

Efecto preventivo de Atomy Him sobre la inflamación de la mucosa respiratoria inducida por alergias, a través de la regulación de la respuesta de células T-Linfocitos

(Preventative Effect of an Herbal Preparation (HemoHIM) on D evelopment of Airway Inflammation in Mice via Modulation of Th1/2 Cells Differentiation)

PLOS ONE | www.plosone.org 2013 | Volume 8 | Issue 7

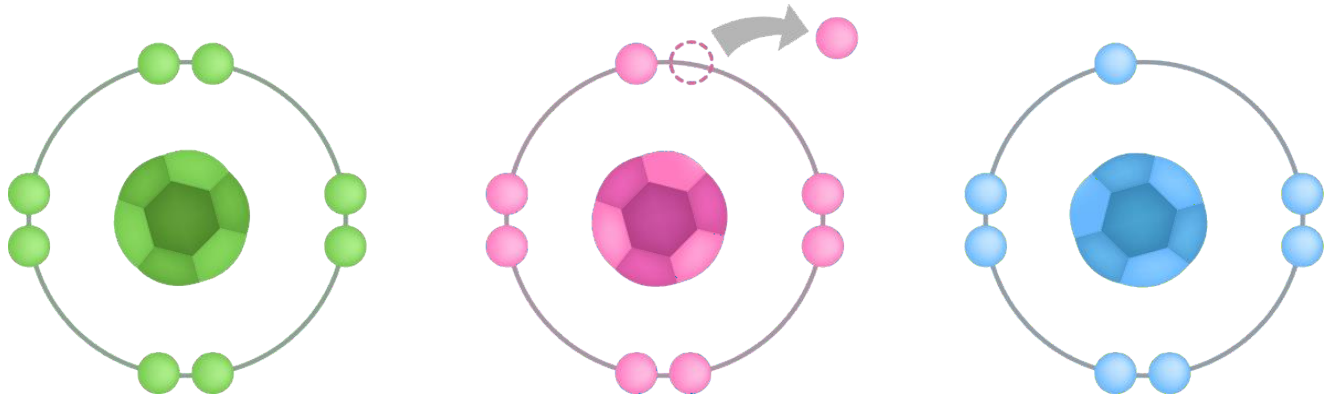
En análisis del fluido broncoalveolar en animales tratados con Atomy Him

Mostró una disminución en la inflamación de la mucosa respiratoria

Esto sugiere que Atomy Him podría tener un efecto positivo en la reducción de la inflamación en las vías respiratorias

Efecto antioxidante de Atomy Him

Generación de radicales libres



Átomo de oxígeno normal

Oxígeno común

Pérdida de electrons

Pérdida de electrones

Radical libre

Especies reactivas de oxígeno

Proceso de oxidación

Es el proceso en el que se pierde un electrón o un ión de hidrógeno (H+)

Proceso de reducción

Es el proceso en el que se gana un electrón o un ión de hidrógeno (H+).

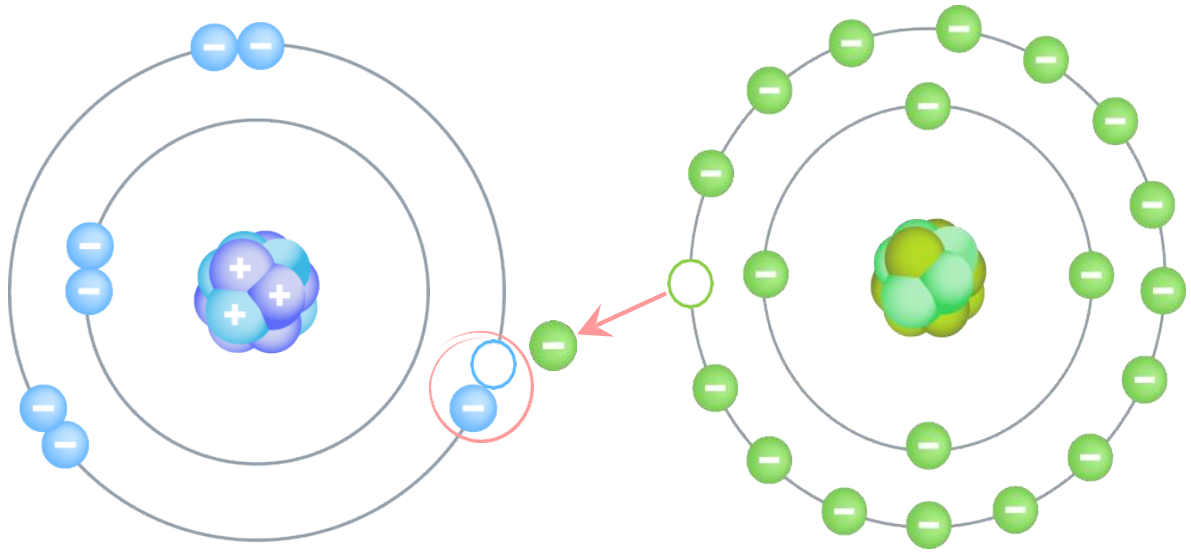
El oxígeno utilizado en los procesos respiratorios y metabólicos pierde electrones y se convierte en especies reactivas de oxígeno (radicales libres). Los radicales libres tienen un espacio vacío en su capa de electrones, lo que los hace altamente reactivos. Estos pueden reaccionar con diversas partes de la célula, lo que lleva al daño celular (oxidación)

Este proceso resalta cómo los radicales libres, generados durante la respiración y el metabolismo, pueden dañar las células y cómo los antioxidantes, como los que se encuentran en Hemohim, pueden ayudar a neutralizar estos efectos

Efecto antioxidante de Atomy Him

Antioxidantes Antioxidants

Los antioxidantes complementan los electrones faltantes de las especies reactivas de oxígeno, neutralizándolas y convirtiéndolas en moléculas estables. Esto desempeña un papel protector al defender las células del daño causado por los radicales libres



Radical libre

Especies reactivas de oxígeno

Antioxidantes:

Agentes antioxidantes

Efecto antioxidante de Atomy Him

- ☑ Su eficacia como antioxidante frente al estrés oxidativo.
- ☑ La citotoxicidad, la destrucción de la membrana celular y la fragmentación del ADN causadas por el peróxido de hidrógeno (un tipo de especie reactiva de oxígeno) se redujeron significativamente

Table 1. Protective effects of HIM-I, HIM-I-P and HemoHIM on viability of HL-60 cells treated with hydrogen peroxide

Concentrations (μg/mL)		0	H_2O_2, 30 μM	% of protection
Control		2.31±0.18	1.42±0.28	0
HIM-I	1	2.14±0.11	1.60±0.28	20.2
	10	2.09±0.18	1.86±0.08	49.4
	100	2.09±0.10	1.62±0.08	22.5
HIM-I-P	1	2.61±0.30	1.93±0.24	57.3
	10	2.10±0.17	1.88±0.17	51.7
	100	2.31±0.01	1.93±0.04	57.3
HemoHIM	1	2.29±0.16	1.93±0.21	57.3
	10	2.01±0.10	1.93±0.16	57.3
	100	2.28±0.08	1.84±0.28	47.2

Cells were preincubated with samples for 24 hours, and then incubated for 6 hours in the presence or absence of H_2O_2. Viable cells were counted by trypan blue staining. Data represent the mean±SD of triplicate cultures.

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과산화수소의 산화적 스트레스로 유도된 Apoptosis에 대한 생약복합조성물(HemoHIM)의 방호효과 평가

신성해[1] · 김도순[1] · 김미정[1] · 김성호[2] · 조성기[3] · 변명우[3] · 이성태[1*]
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Protective Effects of a Herbal Composition (HemoHIM) Against Apoptosis Induced by Oxidative Stress of Hydrogen Peroxide

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Abstract

In our previous study, a novel herb mixture (HIM-I) of *Angelica gigas* radix, *Cnidium officinale* rhizoma, and *Paeonia japonica* radix was developed to protect the intestinal and immune systems and promote its recovery against radiation damage. A new herbal composition (HemoHIM) with the high immune modulating activity was developed from HIM-I. HIM-I was fractionated into ethanol fraction (HIM-I-E) and polysaccharide fraction (HIM-I-P). And HemoHIM was prepared by adding HIM-I-P to HIM-I. HemoHIM showed more effective than HIM-I in immune modulation as well as radioprotection. The present study is designed to investigate the protective effects of HIM-I, HIM-I-P, and HemoHIM on hydrogen peroxide (H_2O_2)-induced apoptosis of human promyelocytic leukemia (HL-60) cells. It was shown that H_2O_2 treatment reduced the viability of cells, and increased appearance of DNA ladders, hypodiploid (subG1) cells, and phosphatidylserine translocation level. Pretreatment of HemoHIM significantly reduced the cytotoxic effect induced by H_2O_2, associated with reducing the translocation of phosphatidylserine, hypodiploid cells and DNA ladders. HemoHIM appeared to be more protective than HIM-I against H_2O_2-induced apoptosis whereas, it exhibited similar activity to HIM-I-P. These results indicated that HemoHIM might be an useful agent for protection against oxidative stress (H_2O_2)-induced apoptosis as well as immune modulation, especially since it is a relatively nontoxic natural product.

Key words: a herbal composition, hydrogen peroxide, apoptosis, oxidative stress

서 론

과산화물 음이온(superoxide anion), 과산화수소(H_2O_2), 수산기 라디칼(hydroxyl radical, ·OH) 등과 같은 반응성 산소종(ROS, reactive oxygen species)은 산화적 스트레스를 유발한다(1). 반응성 산소종은 염증, 노화, 암발생과 같은 다양한 병리학적인 요인으로 알려져 있다(2-4). 반응성 산소종의 농도와 표적세포의 종류에 따라 돌연변이, 염색체 절단, 세포독성, 암발생, 지질 과산화, 단백질 교차결합, 세포 파괴와 같은 다양한 생물학적 손상의 원인이 되며, 부분적으로 항산화제와 자유 라디칼 소거제(scavenger)에 의해 억제된다. 일부 천연 항산화 물질은 세포의 산화적 손상을 방호하는 것으로 알려져 있다. 천연 생약제에서 발견되는 flavonoids는 혈관 이완작용, 항염증, 항바이러스, 항산화, 항암효과를 나타내는 약리 활성 성분으로 알려져 있다(5-9). 특히 quercetin, catechin, kaempferol 같은 flavonoids는 비타민 C 또는 비타민 E보다 항산화력이 뛰어나다(10).

현대의학의 발전에 따라 각종 질병에 대한 원인이 밝혀지고 치료를 위한 의약품이 개발되고 있다. 그러나 아직도 많은 질병에 대한 효과적인 의약품이 개발되지 않았거나 지속적인 약물 사용에 따른 부작용이 나타나는 등 치료에 따른 많은 문제점이 나타나고 있다. 따라서 독성이 적으면서 효과

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Separación/selección de componentes antiobesidad en compuestos herbales

Componentes útiles aislados

Dong Quai

Decursin

Decursinol

Iso-imperatorin

Xanthyletin

Marmesin

Paeonia

Methyl gallate

Catechin

Alpha-tocoperol Nicotinamide Gallic acid

Angelica

Z-butylidenephthalide

Senkyunolide A

Ferulic acid

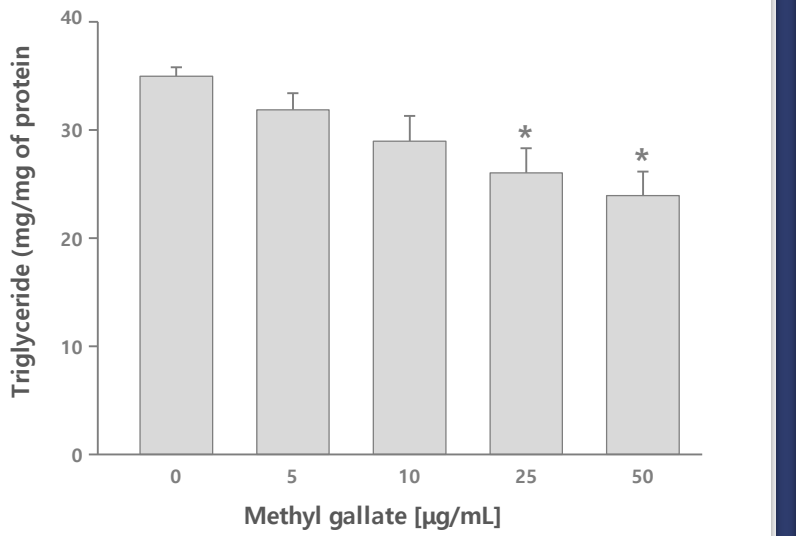
Chlorogenic acid

Oleanolic acid

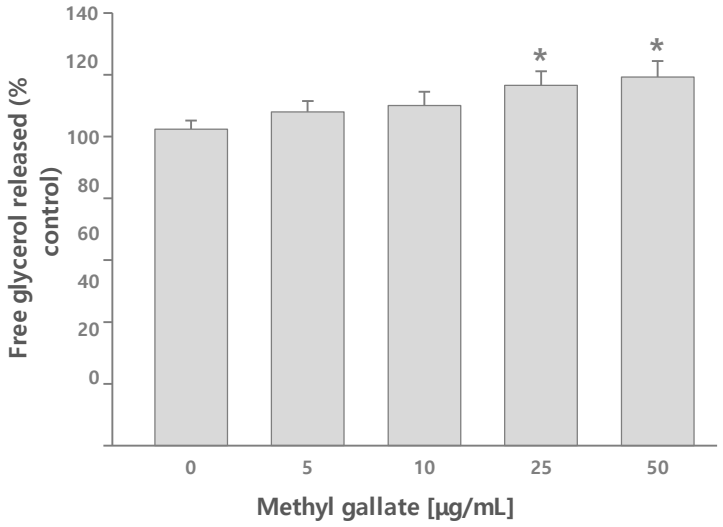
Separación/selección de componentes antiobesidad en compuestos herbales

El glicerol libre mostró un aumento significativo con concentraciones más altas de metil galato.

Efecto inhibidor de la acumulación de grasa del metil galato



Efecto del metil galato sobre la lipólisis (descomposición de las grasas)



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Communication

Screening of Anti-Obesity Agent from Herbal Mixtures

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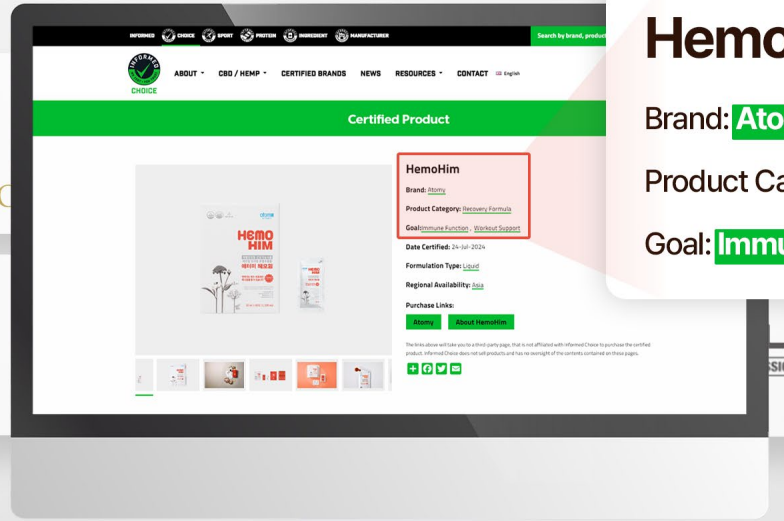
Abstract: Globally, one in three of the World's adults are overweight and one in 10 is obese. By 2015, World Health Organization (WHO) estimates the number of chubby adults will balloon to 2.3 billion—Equal to the combined populations of China, Europe and the United States. The discovery of bioactive compounds from herbs is one possible way to control obesity and to prevent or reduce the risks of developing various obesity-related diseases. In this study, we screened anti-obesity agents such as methyl gallate from the herbal composition known as HemoHIM that actively inhibits lipid formation as evidenced by Oil Red O staining and triglyceride (TG) contents in 3T3-L1 adipocytes, suggesting their use as an anti-obesity agent. Furthermore, the amount of glycerol released from cells into the medium had increased by treatment of methyl gallate in a concentration-dependent manner. The present study suggests that a promising anti-obesity agent like methyl gallate might be of therapeutic interest for the treatment of obesity.

Keywords: anti-obesity; screening; methyl gallate; HemoHIM; lipid inhibition

1. Introduction

Obesity is a leading preventable cause of death worldwide, with increasing prevalence in adults and children, and authorities view it as one of the most serious public health challenges of the 21st century. Obesity is one of the most important health problems in human beings and it increases the likelihood of various diseases, such as type 2 diabetes, and particularly heart disease, systemic hypertension,

Certificación antidopaje de Hemo Him



HemoHim

Brand: **Atomy**

Product Category: **Recovery Formula**

Goal: **Immune Function , Workout Support**

¿Qué es la certificación antidopaje?

INFORMED CHOICE

¿Qué es la autentificación INFORMED CHOICE?

El programa certifica que los productos son seguros para el consumo de atletas de talla mundial y se utiliza como referencia para las pruebas antidopaje, certificando que los productos están libres de más de 200 drogas e ingredientes prohibidos por la Agencia Mundial Antidopaje (AMA). Atomy Him ha sido reconocido no sólo por los atletas profesionales, sino también por el público en general como un producto que puede consumirse con confianza.

Inmunidad

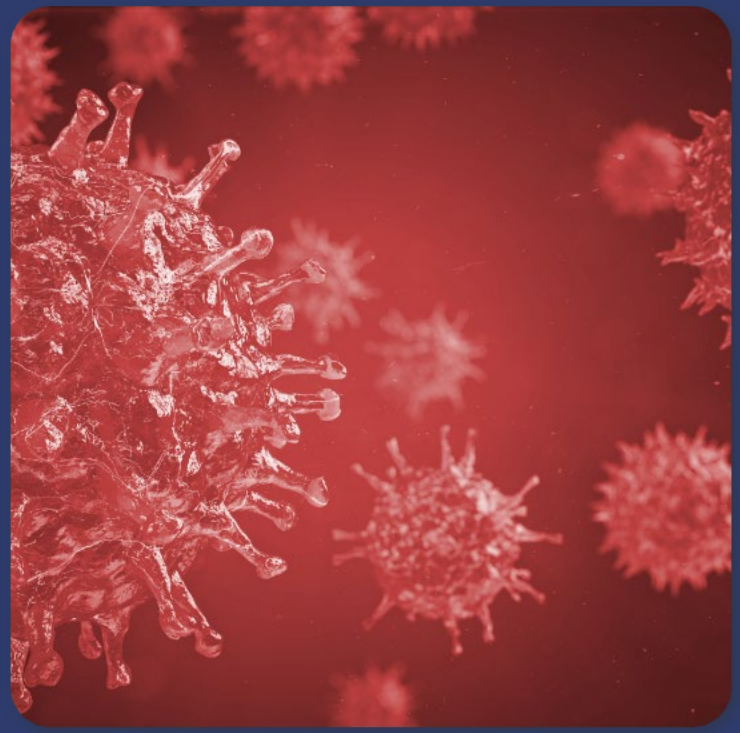
5 Palabras clave para Atomy Him

Atomy Him

Si estudias bien sobre Atomy Him, descubrirás que es un producto que puedes recomendar a cualquiera!

Mejora del sistema inmunológico | Reduce la fatiga

Propiedades antiinflamatorias | Propiedades antioxidantes



Salud de la piel | Efecto antiobesidad

Efecto sinérgico al tomar Atomy Him junto con otros suplementos

Productos de efecto sinérgico

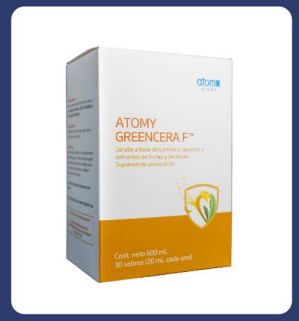
Efecto	Imagen	Producto	Funciones
Fortalecimiento del sistema inmunológico		Atomy Him + Probióticos + Vitamina C	Fortalece el sistema inmunológico + Mejora la salud intestinal
Dieta saludable		Atomy Him + Atomy Tea + Applephenon	Fortalece el sistema inmunológico + Apoya la dieta
Mejora la inmunidad y recuperación de la fatiga		Atomy Him + Rhodiola	Fortalece el sistema inmunológico + Salud hepática
Salud ocular y propiedades antioxidantes		Atomy Him + Luaxanthin	Fortalece el sistema inmunológico + Salud ocular
Mejora de las propiedades anti-envejecimiento y antiinflamatorias		Atomy Him + Noni	Fortalece el sistema inmunológico + Propiedades antioxidantes

Consúmelo según sea necesario, sin restricciones de género ni edad

Suplementos básicos

Inmunidad / Antiinflamatorios / Antioxidantes

Salud digestiva



Fatiga ocular

Protección hepática

Digestión

Productos recomendados según el tipo de consumidor

Género	Edad	Dieta	Articulaciones	Menopausia	Circulación
Mujeres	20~30	 			
	40~60	 			
	70 +				

Productos recomendados según el tipo de consumidor

Género	Edad	Articulaciones	Circulación
Hombres	20~30		
	40~60		
	70 +		

Medicamentos

VS

Suplementos alimenticios

Los medicamentos deben suspenderse cuando te sientes mejor, los suplementos deben tomarse de forma continua para ver sus beneficios.

Estándares de gestión de calidad absoluta

- Publicación de artículos científicos en revistas de nivel SCI, con resultados de pruebas en humanos.
- Solo se utilizan ingredientes que no solo muestren resultados estadísticamente significativos, sino que también demuestren efectos comprobables.
- Se verifica minuciosamente la seguridad y los posibles efectos secundarios, y, cuando es necesario, se desarrolla conjuntamente con instituciones de investigación.

- No hay un costo objetivo ni límite de tiempo en el desarrollo; el único enfoque es crear productos de alta calidad.
- Los ingredientes activos se utilizan en las concentraciones verificadas y sin escatimar en calidad.
- Todos los ingredientes auxiliares también se seleccionan cuidadosamente y se utilizan en las cantidades exactas necesarias.

- La calidad se gestiona según los estándares exclusivos de Atomy, que superan los requisitos legales.
- Todos los productos deben someterse a pruebas de seguridad bajo condiciones más estrictas, sin excepción
- Incluso los problemas pequeños se resuelven antes de proceder con la re-producción.

- Solo se seleccionan empresas que cumplen con los estándares de calidad globales (como GPM, TGA, etc.).
- Antes de iniciar cualquier transacción, se realiza una evaluación de calidad obligatoria de la empresa.
- Se lleva a cabo una auditoría anual constante de las empresas proveedoras.

¡Gracias!