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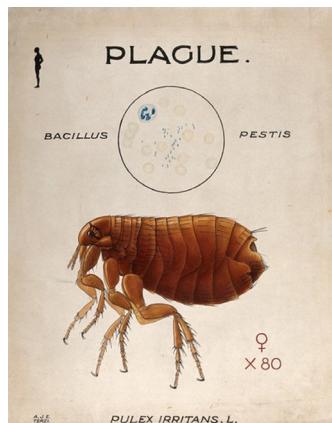
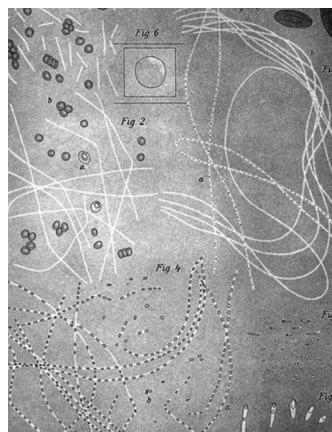
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Uno de los más importantes libros escrito, y más citado, es el libro de Susan Sontag: "La enfermedad y sus metáforas. El sida y sus metáforas". La enfermedad, y las infecciones en particular, han estado presentes por siglos en las obras de la literatura mundial. Las infecciones aparecen en estas obras en el contexto generalmente del tiempo en que fueron escritas, unas veces de forma anecdótica y otras formando parte del corpus del libro y el tema tratado. Este libro quiere ser una aproximación a este tema en la esperanza de que anime a muchas personas a leer estas obras, y además a entender el contexto en que fueron escritas, con las infecciones que fueron predominantes en cada época concreta.

Fernando Vázquez

Portada: Spores of *Bacillus pestis* which caused the plague and its vector the human flea (*Pulex irritans*). Coloured drawing by A.J.E. Terzi, Terzi, A. J. E. 1872-1956.

Disponible en: <https://wellcomecollection.org>

Una visión histórica, socio-cultural y literaria de casos de *Bacillus anthracis* por brochas de afeitar

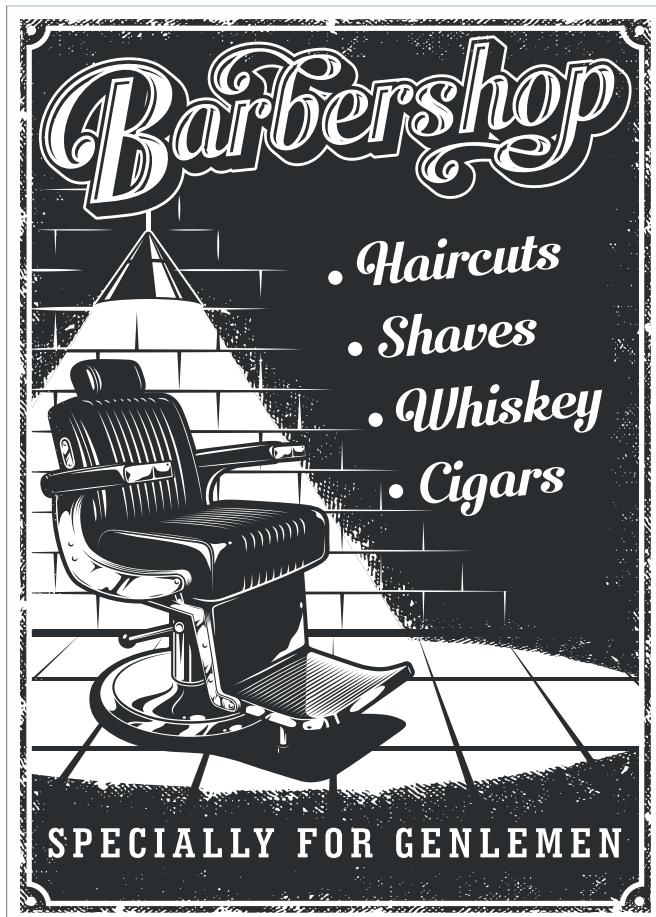


Ilustración de cartel vintage de la época.

Resumen

En el periodo de 1915 a 1924 se describieron brotes de carbunclo por *Bacillus anthracis* debido a la contaminación de las brochas de afeitar que llegaban a Europa y Estados Unidos desde zonas como Japón, China o Rusia. Las brochas se hacían con pelo de tejón y después para abaratarlas con pelo de caballo y de otros animales. La I Guerra Mundial supuso que los tráficos de estas brochas que pasaban por Euro-

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pa cambiase y que los procesos de esterilización de las mismas fuesen deficientes dando lugar a estos brotes que en un porcentaje del 20% produjeron la muerte de los usuarios. Se valora el contexto del impacto de la moda de llevar barba, la presencia de estos casos en la prensa, en la sociedad de ese periodo, y la literatura a través de la obra de Agatha Christie que escribió, en 1936, la novela de Hercules Poirot *Cartas so-*

bre la mesa, donde describe el asesinato de uno de los personajes con la brocha de afeitar contaminada con esporas de *B. anthracis*.

Palabras claves: *Bacillus anthracis*, carbunco, brochas de afeitar, Agatha Christie, medicina en la literatura, literatura

An historical, sociocultural view and in the fiction literature of *Bacillus anthracis* cases by shaving brushes

Introducción

Bacillus anthracis es el microorganismo productor del carbunco, una infección potencialmente fatal y altamente contagiosa. Se puso de moda recientemente como agente de bioterrorismo y se han producido también casos recientes en animales como hipopótamos en Namibia. Pero su historia se remonta a la antigüedad y en la literatura lo podemos rastrear ya en la Biblia en el libro del Éxodo (9:9): “...y se convertirá en polvo fino sobre toda la tierra de Egipto, y producirá furúnculos que resultarán en úlceras en los hombres y en los animales, por toda la tierra de Egipto” [1]. El poeta Virgilio, en el canto III de *Las Geórgicas* cita una epidemia que afectó a los Alpes orientales y describe los síntomas en animales: “se les inflaman los ojos y sacan la respiración de lo más hondo del pecho, agravada a veces por un gemido, y dilatan lo más hondo de los ijares con prolongado hipo; una sangre negruzca se escapa por las narices y la lengua, áspera, opriime sus obstruidas fauces” y en humanos: “si alguien había osado probar estos vestidos malditos, las secuelas inmediatas eran unas pústulas ardientes y un inmundo sudor en sus infec- tos miembros, y a poco tardar, el fuego sagrado devoraba todo el cuerpo contagiado” [2, 3]. Hipócrates, Ovidio, Galeno y Plinio también hablaron de pestes tipo carbunco. Igualmente, varios autores medievales y modernos hacen referencia a este microorganismo. En 1523, el sargento inglés Anthony Fitzherbert recomendaba enterrar los cadáveres de animales muertos de

carbunco, con excepción de su piel, para que fuera enviada a las curtiembres, y la cabeza, para plantarla sobre una pica y así señalar que la enfermedad estaba en el lugar. De nada sirvieron sus buenas intenciones, las esporas del carbunco puede permanecer hasta setenta años en el suelo. En el siglo XIV, la enfermedad se diseminó principalmente por Alemania y en el siglo XVII por Rusia y Europa Central. En 1823, Barthélemy demostró la infectividad del carbunco transfiriéndolo a animales sanos por la sangre de los animales enfermos, y Rayer y Devaine describieron el bacilo en 1850, mientras Devaine en 1864

informó que la presencia del bacilo era una condición para su infectividad [3]. En 1877, Koch lo aisló en cultivo y fue el prototipo de los postulados de Henle-Koch y la primera vacuna atenuada se debe a Louis Pasteur [3-6]. El nombre viene del griego *anthrax* o carbón (*charbon* en francés, carbunco en español y *Milzbrand-* inflamación del bazo en alemán) y fue incluido en la designación taxonómica de *B. anthracis* por Cohn en 1875 [3].

El carbunco es una zoonosis mundial que afecta a la mayoría de animales, sobre todo herbívoros. El carbunco se puede adquirir por diferentes vías: respiratoria, digestiva y cutánea.

La forma respiratoria es difícil de diagnosticar y cursa al principio como una gripe y después con hipoxia y disnea, y la mitad de los pacientes presentan signos meníngeos. La gastrointestinal cursa con dolor gastrointestinal, sangrado y ascitis. La forma cutánea supone más del 90% de los casos y el 20% pueden desarrollar septicemia y morir sin tratamiento, pero con la aparición de los antibióticos la mortalidad es <1% [7].

Actualmente se ha puesto de moda el uso de brochas de afeitar que se pueden comprar por internet y una vuelta a costumbres más naturales, por lo que se describe la historia y aspectos socioculturales y literarios de los brotes de carbunco que se asociaron a principios del siglo XX con la contaminación de las brochas de afeitar.



The principles of bacteriology and immunity / by W.W.C. Topley and G.S. Wilson. Topley, W. W. C. 1886-1944.

Disponible en: <https://wellcomecollection.org/images?query=bacillus+anthracis>

Carbunco transmitido por brochas de afeitar

Antes de la I Guerra Mundial, las brochas estaban fabricadas de pelo de tejón, caballo o jabalí, pero las primeras eran más apreciadas debido a su capacidad de retener mejor el agua para el afeitado [8]. Con la guerra, el suministro desde Rusia se dificultó y se empezaron a hacer con pelo de caballo tanto en este país como China o Japón (sobre todo en el último). Además, la ruta de envío hacia los Estados Unidos de América (EEUU) empezó a realizarse por el pacífico sin las garantías de limpieza y esterilización europeas. La consecuencia fue la aparición de algunos casos de carbunco en 1915 en Inglaterra e Irlanda y al año siguiente en Nueva York que fue el centro de los brotes en los EEUU [9].

Los casos eran más frecuentes con las brochas de color claro, se piensa que por no hacer un tratamiento tan bueno debido a que la desinfección a altas temperaturas

eliminaba el color claro y así dejaban de parecerse a las brochas de pelo de tejón [8].

Estos brotes afectaron a civiles y también a soldados, en este último caso parecen ligados en el ejército al uso del gas clorina y gas mostaza en 1915 y 1917 y la necesidad de afeitarse, en la creencia que era una medida más efectiva para el mejor ajuste y buen uso de las máscaras de gas.

Al principio los oficiales británicos, ante las infecciones en la cabeza y cuello de los soldados, pensaron que se debía a “tácticas diabólicas del enemigo” [10]. En el ejército americano durante la guerra hubo 149 casos con 22 muertes y en las tropas británicas en Francia entre enero de 1915 y febrero de 1917, 28 casos y en los marines 6 casos más, lo que provocó que se prohibiesen las brochas manufacturadas en Japón [11] (tabla 1) [11-19].

El curso de la infección era muy rápido, así se describió el caso del Catedrático Ellerman, de la Universidad de Copenhagen, que pasó de una escara a la tumba entre el 17 al 24 de diciembre

■ Tabla 1

CASOS DE CARBUNCO POR BROCHAS DE AFEITAR PRINCIPALMENTE EN EL PERIODO 1915-1924		
Caso/ Brote	Epidemiología/ Nº casos	Cita
Caso	Brocha nueva limpada con solución de soda y introducida en agua caliente antes de usar Úlcera costrosa mejilla izquierda de cara con edema y adenitis con 6 días de evolución Tratamiento: pomada de mercurio amónico Evolución: 13 días después se selló la úlcera con curación	12
Caso	Caso del Catedrático Prf. Ellerman Brocha de pelo de caballo de China donde se aisló el microorganismo Úlcera costrosa mejilla izquierda de cara con edema Inyección de suero de carbunco Exitus después de 7 días de evolución	13
Ejército Americano	149 soldados	11,13
Tropas inglesas en Francia	28 soldados	13
Tropas inglesas en Inglaterra	18 soldados	13
Civiles en Inglaterra	50 civiles	13
Civiles en EEUU	17 civiles	13
Casos de carbunco 1919-1924 EEUU	10% (50% en Nueva York)	14-16
Revisión literatura en inglés 1880-1923	43 casos entre 1917-1989 (47% posiblemente asociados a brochas de afeitar) De los casos individuales 37% fueron exitus y el 56% de los exitus se dio antisuero El 84% recogidos en EEUU Edad descrita en 25 de 43	8,17
1935	Paciente en Trinidad con pelo de cabra	18
1989	India: meningitis por ritual de rapado de cabeza	19

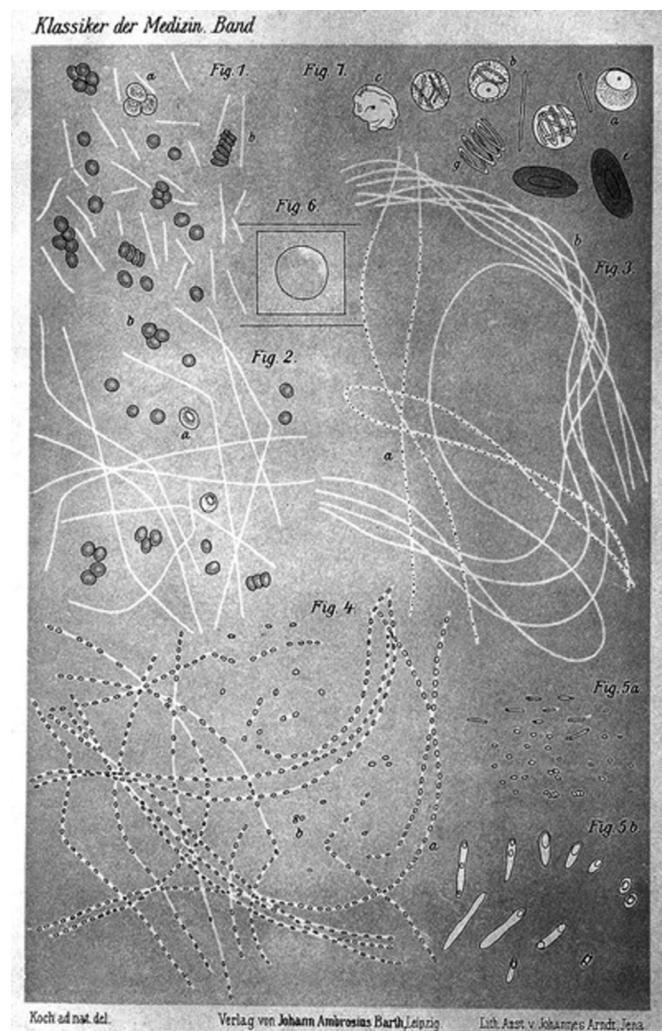
bre de 1924 [11]. Entre 1915 a 1921, hubo 50 casos en civiles en Inglaterra con 18 muertes y en Nueva York otros 18 casos entre 1919 y 1920 con 9 muertes. El Departamento de Salud de Nueva York descubrió que el 80% de las brochas cultivadas tenían esporas de *B. anthracis*, y en el Bellevue Hospital, de 41 brochas investigadas, el 7,3% estaban contaminadas. El aislamiento de *B. anthracis* en placas de cultivo y la forma de las esporas de las brochas fue descrito en detalle en el trabajo de Leake JP y Lederer A [20].

Una vez que se conoció la causa, se pusieron en marcha medidas de control en sitios como los EEUU. En 1918 el Colegio de Cirujanos publicó un método de desinfección del pelo de las brochas y el Consejo de Salud de la ciudad de Nueva York sacó un edicto para todo tipo de brochas con la obligación de poner la palabra "esterilizado" y el nombre del fabricante en todas las brochas. De esta forma desapareció el problema, aunque en las siguientes décadas hubo casos aislados [14, 21].

Tratamiento del carbunco

Antes de la aparición de los antibióticos, el tratamiento del carbunco cutáneo estaba dirigido a destruir o eliminar las lesiones externas por compuestos químicos, cauterización y excisión. Previo al desarrollo de las sulfamidas, en 1903, Scalvo empezó a usar suero, observándose una reducción de la mortalidad en Italia, del 24 al 6%, y en el Reino Unido, del 48 al 4% [22]. Se recomendaba la administración intramuscular y si la infección era grave de forma intravenosa, pero había problemas de anafilaxia, en menor medida con el suero bovino que el de caballo [5,23,24].

Las inyecciones de antisuero alrededor de las lesiones



Die Ätiologie der Milzbrand-Krankheit, begründet auf die Entwicklungsgeschichte des Bacillus Anthracis (1876) / Robert Koch ; eingeleitet von M. Ficker. Koch, Robert, 1843-1910.

Disponible en: <https://wellcomecollection.org/images?query=bacillus+anthracis>

no fueron efectivas y se dejaron de usar en 1932 [25], tampoco se mostró efectiva la aplicación de pomadas con antimicrobianos. Posteriormente al periodo descrito, se intentó con bacteriófagos sin éxito. La estreptoquinasa y la tintura de yodo o fenol estaban contraindicados [26]. La radioterapia a dosis de penetración moderada en varios campos de forma diaria mostró mejoría, pero no hubo seguimiento para ver su efectividad y complicaciones a largo plazo [27]. Antes de aparecer la penicilina, se usaron arsenicales (marfan, neosalvarsán y neoarsafenamina) y sulfamidas [28] y en concreto la sulfatiazolona para la septicemia por carbunco [29,30]. Con el descubrimiento de la penicilina, Fleming demostró su efectividad en el carbunco y posteriormente Murphy et al [31].

El brote de carbunco por las brochas de afeitar en la prensa de la época

Hay numerosas noticias del carbunco en los periódicos del Reino Unido de esa época relacionadas al ganado, pero pocas con las brochas. De unas 480 noticias sobre carbunco de la época que hemos revisado en los periódicos británicos, sólo hay unas 23 de carbunco por brochas de afeitar (esto supone un 4,8% de todas las noticias de carbunco) [32] (tabla 2). Esto da una idea, por un lado, de la importancia del carbunco en aquella época, una infección sin tratamiento, y por otro lado, del papel de las brochas de afeitar con el recuento de casos producidos en ese periodo.

En otras partes del mundo (Canadá, EEUU o Australia),

■ Tabla 2

NOTICIAS DE CARBUNCO POR BROCHAS DE AFEITAR EN LOS PERIÓDICOS BRITÁNICOS DE LA ÉPOCA			
Periódico	Región	Fecha	Tipo de noticia
Western Times	Devon (Inglaterra)	4/10/1920	Caso con exitus
		27/06/1917	Caso con exitus
Nottingham Evening Post	Nottinghamshire (Inglaterra)	25/09/1920	Caso con exitus
		25/08/1916	Confiscación de brochas
		26/06/1917	Pelos de caballos chinos desinfectados
Cheltenham Chronicle	Gloucestershire (Inglaterra)	9/08/1924	Caso con exitus
		28/07/1923	Caso con exitus
Gloucester Journal	Gloucestershire (Inglaterra)	9/08/1924	Caso con exitus
Gloucester Citizen	Gloucestershire (Inglaterra)	3/10/1921	Caso con exitus
		25/07/1923	Caso con exitus
Tauton Courier, and Western Advertiser	Somerset (Inglaterra)	10/10/1917	Caso con exitus
The Scotsman	Midlothian (Escocia)	15/11/1919	Casos notificados
		25/08/1916	Casos notificadas
		6/01/1920	Brochas de Japón
		9/12/1922	Reunión Comisión Internacional
		6/02/1917	Acciones contra la compañía productora
		27/06/1921	Experimentos de desinfección del pelo de caballo
		24/12/1926	Pagos por la destrucción brochas
Derby Daily Telegraph	Derbyshire (Inglaterra)	26/06/1917	Casos notificados
Dundee Evening Telegraph	Angus (Escocia)	3/10/1921	Caso con exitus
Yorkshire Post and Leeds Intelligencer	West Yorkshire (Inglaterra)	7/08/1924	Caso con exitus
Yorkshire Evening Post	West Yorkshire (Inglaterra)	15/11/1919	Brochas contaminadas de Japón
Northern Wig	Antrim (Irlanda del Norte)	1/12/1916	Alarma de contaminación

Am quaspient et am enda sint valorporpor rem et doluptur, niscil illo optiati onsequat faccae labor assi re, eosame cum volendi tatque que pro blaudamet autecto is aribus el id mi, consequ odisqui tem la idelibus audis pliassi ulpa sandam as dende non preptat ut que samet erciis dernati amusaniatius rempororum dole-caeperro inci odiatiae. Dolende veritio mo minci coreped quiditae cullenis volo que que magnatur, voluptiuntin re voluptibus sam, nitias est etur?

sin hacer una revisión de la prensa como la anterior, también aparecen noticias del mismo tipo.

Aspectos sociales y culturales de la barba

En el Reino Unido, durante la época victoriana, la barba y otros aspectos del pelo facial resurgieron en popularidad debido a la Guerra de Crimea (1853-1856). La barba proliferó en los soldados, ya que de alguna manera les mantenía más calientes en un ambiente de frío invernal, y a la vuelta la pusieron de moda en la sociedad de la época, restringida a los círculos académicos y políticos. Tal fue su uso en los siguientes años que algunos médicos la recomendaban, como el Dr. Tom Robinson, que publica un artículo "Barbas" en el The St. James Magazine en 1881, aconseján-

dola para prevenir afecciones de los dientes, catarro nasal y neuralgia facial, o que los que la portaban estaban menos propensos a la bronquitis [33]. En el siglo XX, esta moda fue perdiendo fuerza debido a la teoría de los "gérmenes" en los hospitales y a que la barba podía albergar bacterias como el bacilo tuberculoso, por lo que los hospitales a partir de 1890 afeitaban a sus pacientes para prevenir la transmisión entre personas [34]. Se usaban navajas barberas y en Nueva York se aprobó un edicto prohibiendo llevar barba a los lecheros, ya que podían albergar en ella suciedad o el bacilo tuberculoso que acabase contaminando la leche. Después esta prohibición se extendió a los médicos que podían incrementar la mortalidad de los pacientes [34]. En la I Guerra Mundial, con las máscaras de gas y la aparición de las cuchillas desechables producidas en masa por la compañía Gilette, la barba declinó en popularidad [34].

■ Tabla 3

ANTIBIÓTICOS, ANTISÉPTICOS, MICROORGANISMOS E INFECCIONES EN LAS NOVELAS DE AGATHA CHRISTIE		
Fármaco/ Infección	Obra (título en español y en original)	Uso y comentarios
Antibióticos y quimioterápicos		
-sin especificar	Un gato en el palomar (Cat among the pigeons); Los elefantes pueden recordar (Elephants can remember); Asesinato en la calle Hickory (Hickory, Dickory death); Pasajero a Frankfurt (Passenger to Frankfurt); La tercera muchacha (Third girl)	Referencias muy triviales
-penicilina	Los elefantes pueden recordar (Elephants can remember)	Cita general pero A. Christie en general no cita antibióticos en sus obras
-quinina	Cita con la muerte (Appointment with Death) Peligro inminente (Peril at End House)	Malaria cerebral
-sulfapiridina (Sulfa M y B, May & Baker 693)	Un puñado de centeno (A pocket full of Rye)	Malaria Usado en una neumonía
Antisépticos		
-sin especificar	La puerta del destino (Postern of fate); Destino desconocido (So many steps to death), Asesinato en la calle Hickory (Hickory, Dickory death)	Referencias solo de antisépticos sin especificar cuales
-ácido bórico	Asesinato en la calle Hickory (Hickory, Dickory death) Cita con la muerte (Appointment with Death) Muerte en las nubes (Death in the air)	Lavado ocular Spray nasal en fiebre del heno Cocaina en una botella etiquetada como "ácido bórico"
-arsenito de cobre (verde de Scheel)	Intriga en Bagdad (They came to Baghdad)	Antiséptico intestinal y diarrea
-fenol	El tren de las 4.50 (What Mrs. McGillicuddy saw!)	Bailarina que bebe fenol
-balsamo de Friar (tintura de benzoína)	La puerta del destino (Postern of fate)	Antiséptico cutáneo o inhalado para bronquitis y laringitis
-yodo (solución de)	La puerta del destino (Postern of fate)	Uso en herida de bala
-unguento (con talio)	El misterio de Pale Horse (The Pale Horse)	Se aplica a una tiña en un perro
Microorganismos e infecciones		
-Bacillus anthracis (carbunco) toxina	Cartas sobre la mesa (Cards on the Table)	Brocha de afeitar No explica como las consigue ni como las manipula con seguridad
-Clostridium tetani	La aventura de la tumba egipcia (The adventure of the egyptian tomb)	
-Mycobacterium leprae	La aventura de la tumba egipcia (The adventure of the egyptian tomb)	
-Bronconeumonia	Los doce trabajos de Hércules (The flock of Geryon)	El médico usa, para asesinar mujeres, bacterias que cultiva en su laboratorio: El bacilo colín momunis (E. coli), tifus, neumococo, «antigua tuberculina»
-Neumonía después de gripe		
-Fiebre tifoidea	Matar es fácil (Easy to kill)	Envenenamientos que recuerdan una gastroenteritis
-Tuberculosis	Intriga en Bagdad (They came to Baghdad),	
-Septicemia	El misterio de Cornualles (The Cornish mystery)	
-Toxiinfección alimentaria		

El brote de las brochas de afeitar en la literatura: Agatha Christie y el Carbunco

Aunque Agatha Christie no fue entrenada formalmente

como farmacéutica, llega al mundo de los productos farmacéuticos como enfermera voluntaria durante la I Guerra Mundial. Mientras servía en el Hospital Torquay de la Cruz Roja se entrenó en el trabajo y realizó un examen que la convirtió en el equivalente de una auxiliar de farmacia. Agatha Christie reanudó sus funciones en la farmacia durante la II Guerra Mun-

dial, por lo que adquirió una gran experiencia como dispensadora de medicamentos y fórmulas [35-37].

De las cerca de 300 víctimas de sus novelas, en 41 al menos (60% de su producción literaria) se usaron venenos, principalmente y en este orden: cianuro, arsénico, estricnina y digital. Las infecciones, los agentes causales y sus tratamientos también están presente en sus obras (tabla 3) [35]. Agatha Christie era conocedora por la prensa de la época del carbunco por brochas de afeitar y lo incorpora en su novela “Cartas sobre la mesa (Cards on the table)” de 1936, donde aparece su personaje más célebre Hércules Poirot. Utiliza esporas de *B. anthracis* en la brocha de afeitado: Mr. Craddock muere debido a las esporas en su brocha de afeitar y su transmisión transcutánea al afeitarse debido a las abrasiones y cortes por la cuchilla de afeitar. Agatha Christie no explica como el asesino obtuvo las esporas, las manipuló y las colocaban en la brocha sin riesgo para sí mismo.

El carbunco como arma biológica en esa época está representado por dos libros de ciencia ficción, el primero es “Zalma” de 1895 del escritor Thomas Mullett Ellis y el segundo “Shawoded for Life” de 1896 del escritor Gordon Stables [38]. “Zalma” recibió algún interés en las revistas médicas y es un intento de diseminar el carbunco con globos [39]. En 1894 H.G. Wells escribe su cuento “El bacilo robado” también como otro intento anarquista de robar, en este caso el bacilo colérico, para contaminar la traída de agua de Londres. En años más recientes, en 1999, se vuelve a utilizar el carbunco en forma de arma biológica en la novela de Robin Cook “Vector”, adelantándose al brote de carbunco por cartas en Estados Unidos, a raíz del cuál aparecieron libros como “Anthrax: the game” de Dwan G. Hightower en el año 2001 o “Anthrax: a Will Cannon, Bounty Hunter” de Larry Hill en el año 2013 [36].

En conclusión, describimos el ambiente histórico de un brote de carbunco por brochas de afeitar en el contexto de la forma como se manufacturaban y se esterilizaban, el ambiente sociocultural y las razones de porque se produjeron los casos, su repercusión en la prensa y su influencia en literaria en la obra de Agatha Christie.

Conflictos de intereses

Los autores declaran no tener ningún conflicto de intereses.

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John Donne, Spanish Doctors and the epidemic typhus: fleas or lice?

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Monumento a John Donne en la Catedral de San Pablo de Londres.
https://es.wikipedia.org/wiki/John_Donne#/media/Archivo:John_Donne_sculpture_St._Paul's.jpg

Resumen

Se describen las infecciones que aparecieron en la vida y la obra de John Donne (1572-1631), el poeta metafísico inglés, principalmente el tifus epidémico que padeció y que dio lugar a su obra “*Devotions upon emergent occasions, and several steps in my sickness*”. Discutimos el vector transmisor de la enfermedad, en comparación de otras infecciones en ese periodo, que los estudiosos de Donne han relacionado a las pulgas y sin mencionar el piojo del cuerpo

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que es el verdadero vector del tifus epidémico. Además, mencionamos los síntomas de la enfermedad en su obra “*Devotions*” en comparación con los trabajos de Luis de Toro o Alfonso López Corella, médicos españoles de su tiempo y los primeros en escribir los tratados sobre la enfermedad, y el tratamiento singular de las carcasas de palomas en las palmas y plantas de los pies en los médicos ingleses pero no presente en los médicos españoles.

Introduction

The first three treatises on epidemic or exanthematic typhus were from the Spanish doctors Alfonso López de Corella (c. 1519-1584), Luis Mercado (c. 1520-1606) and Luis de Toro (c. 1532-1591), printing in Zaragoza, Valladolid and Burgos, respectively. As Arrizabalaga remarks: “*behind the word and the label of epidemic typhus there are several entities with which they were confused*” [1], for example the distinction between typhoid fever and exanthematic typhus occurred already in modern times.

In this review, we describe the infections that appear in the life and work of Donne, fundamentally the exanthematic typhus that suffered and gave rise to his work *Devotions upon emergent occasions, and several steps in my sickness* and we discuss the vector of transmission of this disease that Donne’s scholars have related to the flea without mentioning the body louse and as a source of contagion through the dresses of his time. Likewise, we mention the exanthematic typhus’s symptoms in his *Devotions* in comparison with the Luis de Toro’s or Alfonso López de Corella’s works and the singular treatment of pigeon carcasses on the soles of the feet in English Doctors but not in Spanish Doctors.

John Donne (1572-1631). John Donne has been defined as a metaphysical poet, denomination coined by his enemies [2], and is known above all for his quotes as “*No man is an island, entire of itself; every man is a piece of the Continent, a part of the main...*” and “*Any therefore never send to know for whom the bell tolls; it tolls for thee*”. Contemporary of Shakespeare, who is believed to be also crypto-Catholic, and the Quixote of Cervantes is a writer who was little understandable, close to the baroque poetry of Luis de Góngora, and therefore he was postponed for a long time. Also, he changed from Catholicism to Anglicanism, at a time that being of this religion in England was a very great danger of death, and of writing erotic and love poems to become a cleric and dean of St Paul’s Cathedral in London. He has been described as a flatterer and adventurer who participated in his youth in the attack of the Earl of Essex against Cadiz (Spain) in 1596. Also, in some of his works such as the “*Elegy to his mistress going to bed*” censored and, that was not published until 1669, a pornographic Donne and full of eroticism is displayed [2].

In the poem “*Whispers of Immortality*”, TS Eliot places Donne in the same category as John Webster (1580-1633), those writers with a depressive disposition. The melancholy was a typical vision of the 17th century as in the book of Robert Burton (1577-1640), *Anatomy of the Melancholy*

(1621), and Webster in the Elizabethan Age [3]. There is an obsession in Donne for mortality in all his works, the result of his time: at that time mortality, especially in newborns, was very high (five out of his children died), a certain depression of his personality and his concerns by lack of money, the existence of epidemics such as plague, typhus, smallpox and cholera, the executions and funerals that were public. The culture of melancholy was prevalent in that period [3].

Infections and John Donne

The infections prevalent in Donne’s time were typhus, dysentery and smallpox [4], but plague and other infections were present in Donne’s life in addition to the epidemic typhus:

a) Pharyngotonsillitis. Throughout his life, Donne had repeated attacks of intermittent mild fever that have been labeled as probable episodes of pharyngotonsillitis [3].

b) Plague. Donne attributes it to vapors and humidities of the earth and the flea says that “*although it does not kill, it produces all the damage it can*”. One of Donne’s most popular erotic poems is *The flea*, due to the frequency of fleas in the Renaissance and the appearance of the plague. In this poem, the flea, it is a sexual metaphor. The argument is the refusal of the woman to have sex and how to convince her to make love, if a flea takes blood from the woman and after the man, both bloods are mixed in the flea, why not do it in the same way in the sexual act and its consummation as the image of the flea and the blood?. Also, in the original English, the word *maidenhead* in the poem means hymen so the poem implies that the woman is a virgin. It is believed that he wrote it when he was young and was studying law and that he did it to impress his male classmates. The poem was not published until two years later, in 1633, of Donne’s death [5].

c) Greatpox. In his poem *The aparition* says [6]:

*And then poor aspen wretch, neglected thou
Bath’d in a cold quicksilver sweat wilt lie
A verier ghost than I ...
(II. 11-13)*

*(pobre álamo tembloroso,
yacerás bañada en un frío sudor de mercurio,
más fantasmal que yo)*

Mercury (quicksilver) was a treatment for greatpox, or misnamed currently syphilis, here of a woman called “*false*

"vestal" indicating that she carries a sexually transmitted infection, and ends the poem sinisterly [5]:

since my love is spent,
I had rather thou should'st painfully repent,
Than by my threat'nings rest still innocent.
(15-17)

(puesto que mi amor ya no existe,

me gustaría que te arrepientas con dolor,

más que a que por miedo seas inocente).

d) Exanthematic typhus.

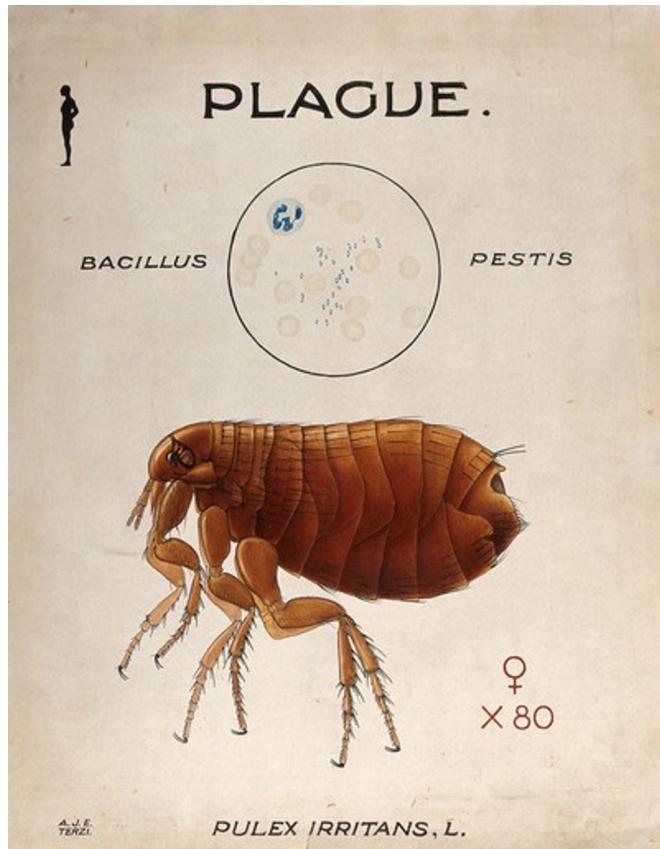
Donne already had had an encounter with the disease 30 years earlier, in 1593, the typhus had killed his brother Henry in prison after having housed a Catholic priest. He refers to this event and exposes it in *Expostulations XVIII*. In the biography that accompanies the edition of *One Hundred Poems* in Spanish (100 poemas en español, Editorial Pretextos), it is said that he died of plague in jail [7], but at that time typhus was more typical in prisons.

Exanthematic typhus and devotions

a) Chronology. On November 22, 1623, Donne presides over a trial and is his last appearance before becoming ill on November 23-24. Donne suffers from the first symptoms of an infection that most scholars think it was an exanthematic typhus, some scholars think it could be a flu, tuberculosis or recurrent fever and that in any case the nature of their disease would be unproven [8a, 8b]. The most likely diagnosis by the symptoms, in any case, was typhus in an epidemic that devastated London that year and that killed around 8,000 people and that closed the Parliament from

September 4 to February 15, 1624 [9]. At that time Donne was dean of St. Paul's Cathedral, he had already written most of his poetry and sermons.

The disease prostrates him about 20 days and writes one of his most famous books: *Devotions upon emergent occasions, and several steps in my sickness*, [10] which is divided into 23 parts or chapters that are each of them subdivided into the *Meditations*, *Reconventions* and *Prayer* sections, the three emblematic parts of the Holy Spirit, but also the internal structure in 3 parts of each chapter should be read as the morning, late entries and night of a medical history: *Meditations* represent the symptoms collected from each day in a rational and scientific way, at noon (*Reconventions*) the dissatisfaction appears and with the increase of the fever the protests appear with biblical references, so the section *Prayer* is the shorter of the three [11]. It is partly a personal diary, meditation and prayer and is one of the most accurate, and in the first person, examples of the literary description of a disease [12]. It is a metaphorical construction and the analogy of the disease of the body and the disease of the soul [13] with



Spores of Bacillus pestis which caused the plague and its vector the human flea (*Pulex irritans*). Coloured drawing by A.J.E. Terzi, A. J. E. 1872-1956.

Disponible en: <https://wellcomecollection.org/images?query=lice#>

precise observations of his illness, the treatments applied and his recovery. In the 14 days of the disease progress, descriptions of the symptoms that match an exanthematic typhus are made. In addition, his recovery was slow, about 3 months since he does not give another sermon until March 28 on 1624 in St. Paul's Cathedral [13].

b) Doctors who treated John Donne. Since the reign of Henry VIII, there was an act that said that medicine could not be practiced in London unless the doctor was reviewed and endorsed by the Bishop or Dean of St. Paul's Cathedral, so Donne knew his doctors [14]. Donne's known doctors, and

who had a relationship with William Harvey, were Simeon Fox and William Clement [3]. Those who assisted him in his illness were first his friend Simeon Foxes and due to the seriousness of the picture the doctor of King James I, Theodore Turquet de Mayerne. Mayerne introduced the calamine lotion, lotio nigra (lotion used for syphilitic and scrofulous ulcers) into the pharmacopoeia of his time, and an early form of laudanum. He wrote after treating Donne, a treatise in Latin *Ad febram purpurean about typhus* (the typhus was called purple fever) [15]. This supports the fact that Donne's disease was an exanthematic typhus since at that time the typhus was well known to doctors and previously Fracastoro in his book *De Contagione* in 1545 classifies pestilent fevers and gives the first description of typhus.

c) Denomination of the disease. The body louse is known to transmit the trench fever by *Bartonella quintana*, the recurrent fever by *Bartonella recurrentis*, the exanthematic typhus by *Rickettsia prowazekii* and the plague by *Yersinia pestis*. Exanthematic typhus (the etymology means: smoke, fog, senselessness or stupor caused by fever), has been closely linked to epidemics in wars since time immemorial.

Typhus, as a clinical concept, appears in the work of Persian doctors, 'Homay-e mohregheh' (typhic fever) and the clinic is described in the book *al-Hāwi, Qānum fi'l -tebb* (Canon of medicine) by Abu Bakr Mohammad Ibn Zakariyā Rāzi and in the *Dakira-ye kvārazmšāhi* (Treasure of the kvārazmshāh) by Esmāll Jorjāni. The latter one, he describes the symptoms and rash as well as its mortality and recommends washing the patient's body with cold water, calling to the typhus *mohregheh* and to typhoid *motabhbegheh* fever. Several fevers including typhus are also described in the oldest treatise on Persian

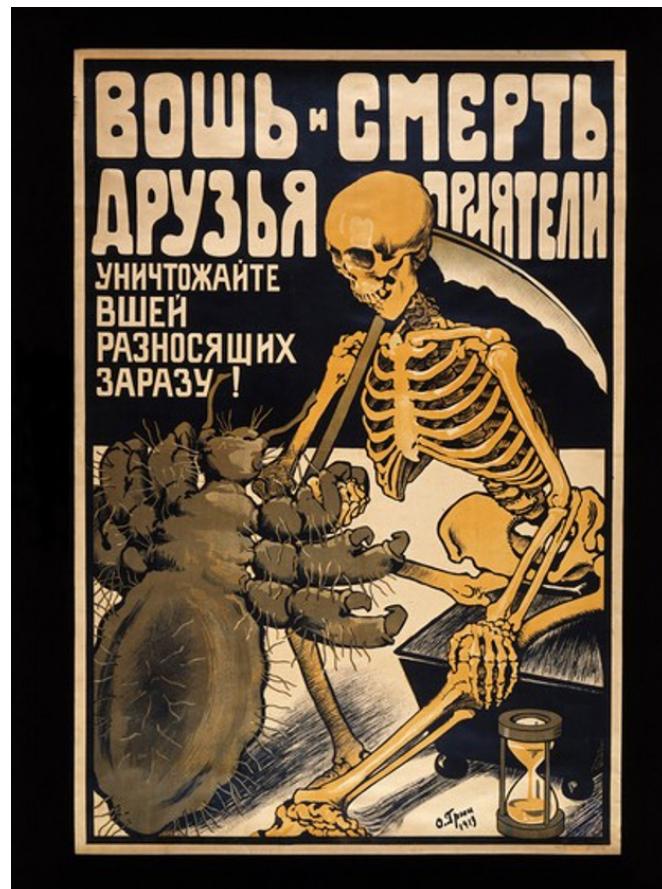
medicine written about 983: *Hedāyat al-mota'allemin fi'l-tebb* by Akawayni Bokāri [16].

In the 16th century in Spain, the word typhus had several denominations: "puncticular" or "lenticular" fever (derived from lentil due to the size of the spots on the skin), "pulicularis" (derived from fleas), "aphid", "tabardillo", "tabardete", "pintas" (denominations by the common people) or "tabardillo pintado (painted)" described by the doctor Luis del Toro in 1557 [17]. The Spanish doctors who studied the typhus at this time were: Alfonso López de Corella and Luis de Luis Toro, both in 1574, and Luis Mercado, in 1586. Alfonso López de Corella (1513-1584), published an important and original text dedicated to exanthematic typhus, called by the Spanish Renaissance doctors "morbus lenticularis", "tabardillo", or "pintas", for dermatological lesions "similar to flea bites". This text appeared under the title of: *De morbo pustulato sive lenticulari, quem nostrates Tabardillo appellant liber unus, atque de Galeni Placitis liber alter, quo omnibus fere medicis qui praedictum auctorem hucusque impugnarunt respontur ...*[18].

The word "tabardillo" (1570) derives from the eruption of spots that covers the entire body like a tabard

[19] and De Covarrubias in his *Treasury of the Castilian or Spanish language* (1611) [20] says that it is named after the Latin "Tabes" that it means rot, because the blood rots or corrupts [19]. An excellent review of the term "tabardillo" is collected by Jon Arrizabalaga and it is out of the scope of this review [1].

It is however, Luis de Toro who makes a reliable description of the symptoms considering himself the first and most important doctor of the "tabardillo" [17]. De Toro describes the pustules as "almost never bloom from the



The typhus louse shaking hands with Death. Colour lithograph by O. Grin, 1919. Grin, O., active 1919.

Disponible en: <https://wellcomecollection.org/images?query=lice#>

beginning (of fever), but on the fourth, fifth, sixth, seventh day, and even later", also "the spots that are seen never accuse any detectable tumor to the touch, but they are as if someone stained the meat with ink dots ". As a measure to avoid it already describes that "you must run away from the dresses and shirts of the sick".

Gregorio Marañón (1887-1960) made a fairly precise description of the clinical picture: he observes that the picture begins with 3 days of progressively ascending fever that ends with a sudden crisis, after 2 to 4 weeks of feverish picture. There is an intense headache and conjunctival injection. The rash appears from the third to the sixth day with a rash (skin rash), first congestive and then petechial (live red spot, similar to the flea bite, which does not disappear at the pressure of the finger), and even hemorrhagic. Marañón says that there is the tremor in the hands and the frequent "typhoid state" of the patients. Complications include myocarditis, neurological manifestations, and involvement of the parotid glands. The duration of the disease is 14 to 16 days. Towards the 10th day is the crucial moment of the disease, either the patient worsens with presentation of coma and consecutive death, or begins to improve in a definitive way [21].

The typhoid state also was known as the "new fever", "Irish fever" or "flea bite fever", the name of exanthematic typhus was given by the French doctor Boissier De Sauvages in 1760. The rash of typhus was differentiated of the typhoid by Huxham in 1739 and subsequently Gerhard, histologically, based on the absence of ulcers in Peyer's corpuscles during the 1836 Philadelphia epidemic.

Source and transmission of Donne's Typhus: fleas or lice?

The exanthematic typhus is produced by the bacterium *Rickettsia prowazekii* and transmitted by the body louse (*Pediculus humanus var. corporis*), in exceptional cases there have been cases transmitted by the head louse (*Pediculus humanus var. capitis*). In his book *Devotions*, Donne talks about the flea as the cause of his illness. Although typhus transmission by fleas is possible by aerosols, this pathway is very rare and exceptional since the body louse is the main vector involved and it is suspected, although is controversial, that in some cases also ticks. At that time, the fleas were causing the bubonic plague produced by *Yersinia pestis* and was associated with the transmission of typhus, curiously today it is known that the plague can also be transmitted by the body louse [22]. Spanish Renaissance doctors, as we

had indicated above, comment that dermatological lesions are "similar to flea bites", hence the confusion with the typhus vector. In a molecular study, three scenarios of plague transmission in Europe have been established between the 14th and 19th centuries: the first would be the classical dissemination of rodents and fleas, the second by humans who spread pneumonic plague through coughs and the third that has been seen to be the most likely is that lice and fleas spread the plague and did not depend so much on the increase in rats [23]. In the time of Donne, fleas could easily coexist with the patients (in an average of 6 fleas) with the body louse that remain infectious for a period of 3 days [23].

On the contrary, the possibility that fleas transmit exanthematic typhus is unlikely, although fleas can transmit other *Rickettsias* (murine typhus for example), and is recognized as a transmission mechanism only to the body louse when it is epidemic and in cases of recrudescence (Brill-Zinser disease) is transmitted by humans. Only in the eastern United States has been seen transmission, by lice and fleas, between flying squirrels (*Glaucomys volans*) although this mechanism is not clear [22].

None of the scholars on Donne, and included in the bibliography of this work, although they mention the possible infections that could be the cause of Donne's clinical picture described in his *Devotions*, refers to the possibility of transmission by the body louse and is assumed that the transmission is by fleas, the prevailing idea is that period, something that is, as we indicate, quite unlikely. In one study, the author indicates that typhus was often confused with the plague and that "in fact, there is a strong analogy between the two diseases, both derived from a similar source, mainly rats and infestation with fleas..." [11]. The presence of two coincident and overlapping epidemics occurred in Andalucia between 1569 and 1570: in Seville and Puerto de Santa María, people died of "landres" or plague and in areas such as Bazan of "modorra" or typhus [24]. In the same way, both overlapping diseases could be coexisting in the Donne's period.

As we indicated, the epidemiology the source and the vector, are different in the two diseases although they are associated with common hygienic and sanitary conditions. Typhus manifests itself in a cold season, Donne had the disease in November, the time of more cases due to wear more clothes. Therefore, the source of contagion was in the case of typhus the dresses worn by people with body lice in addition to fleas. Samuel Pepys (1633–1703) in his diaries [25] says that he did not wash more than exceptionally, but in February 1664 his wife did it and discovered the pleasures

of the bathroom and did not allow him to enter on the bed until he did the same, which took 3 days to complete. He washed his feet every few weeks or when he was going to enjoy a night of sexual rejoicing, curiously his wife died of exanthematic typhus. Hygiene was poor at that time and caused diseases such as typhus. It is a Bohemian doctor, Tobias Coberus, who makes the first description (1606) in which he relates the abundance of lice with the disease in his treatise *Observations castrenium et ungaricarum* [26].

Donne only mentions lice in the *Sermons* [27]:

God punished the Egyptian with little things: with hailstones, and frogs, and grasshoppers; and Pharaoh's conjurers, that counterfeited all Moses' greater works, failed in the least, in the making of lice.

Alfonso López Corella, in his work [18], tells that it is due to the bite of some insects (he talks in general of insects not just fleas) and called the disease "tabardillo", "aphid", "tabardete", "punticular" and "tuberquillo".

Typhoid clinic and treatments in devotions

Donne's symptoms appear as indicated on November 23-24, 1623 (Table 1), the disease appears as a sudden fever with frontal headache [28]. A symptom of typhus was a persistent and high annoying tinnitus with vertigo and a feeling of weight or head load.

Luis de Toro [17] tells that it starts with great laxity of the whole body and then there is heaviness and pain between the scapulae. The face becomes very hot, the eyes are injected with blood and tear incessantly. There is a vehement headache; the pulse becomes large, as in pleurisy; they feel a serious weight in the lumbar region; they sleep little and uneasily: most of the time they have sleeplessness and delirium; the urine is very ingrown and murky ... inextinguishable thirst, anxiety, nausea, vomiting, roughness and blackness of the tongue. If the dominant mood was melancholy, the patients had, in addition to what was indicated, sad delusions, the dream was very disturbed, fear, sadness and fainting ... It produces atrocious delusions, in other fatiguing vigils; some leave them deaf; to other dumb, some comatose and stunned or convulsed and shaky.

Although Donne's red urine (*Meditation I*) may have been a hematuria due to the disease, he may be referring to the first of the 10 plagues in Egypt and speak metaphorically. And hydrops of the heavens in *Meditation X* can refer to the retention of urine in the typhoid or a metaphor. In *Meditation*

III that speaks through stones, it can refer to talking with pustules in the mouth and pharynx that occur as clinical manifestations in typhus or refer to Demosthenes speaking with stones to practice. The suffocation, in *Meditation XII*, may be the pulmonary phlegm and cough that accompanies typhus. As Frost says [15], symptoms are screened with symbols and rhetoric remedies.

In delirium, the patient speaks loudly incessantly, singing, making noises night and day. Dr. John Armstrong, in the early nineteenth century, suffered a typhus attack and says that during the illness he wanted to collect all the neurological symptoms that appeared [29]. Also it is known that a rare complication of typhoid fever, caused by *Salmonella* spp., are psychiatric manifestations.

The treatment followed the principles of Galenic and Paracelsian medicine, was symptomatic and supportive, maintaining nutrition and fluid balance, preventing heart failure, mitigating fever and the consequences of delirium [8]. The treatment would be 5 indications [18]: the regime, the cooking of the moods, the evacuation, the revulsion and the repair of forces. Patients who took more food healed better and convalesced sooner than those undergoing a debilitating diet. Of the purgatives, he prefers drastic ones to the simple and soft ones, for example the cooking of "albérchigo" leaves. Bleeding only in case of need and not always in all cases and should be proportionate to the disease and the forces of the sick.

The strangest treatment was the application of pigeon carcasses on the soles of the feet, this practice is cited by several English writers: John Webster in his work *The Duchess of Amalfi* (Act III, scene 1, 11.45-50) [30]:

Bosola: I would sooner eat a dead pigeon taken from the soles of the feet of one sick of the plague than kiss one of you fasting.

This work was printed in 1623, the same year of Donne's disease but which was already written in 1614 and in *The Diary of Samuel Pepys*. Thomas Lodge also cites the pigeon carcasses in his "*Plague Treaty*" of 1603 and is used by Shakespeare's own son-in-law, doctor John Hall when he had a fever in 1632 [15].

Luis de Toro or Luis Mercado, who used or wrote in his book the most animals and his products in his time, does not mention the use of pigeons in the same manner as in England's doctors [31]. Finally, Corella quotes instead an oil from Florence: "*Now there is also a certain secret oil, brought from Florence, with which they say they should anoint the palms and soles of the feet, and also the wrists and the*

■ Table 1

CLINICAL COURSE OF EPIDEMIC TYPHUS AND IN DEVOTIONS AND LUIS DE TORO'S DESCRIPTION		
Disease course	John Donne's Devotions	Luis del Toro's descriptions
Incubation period: 10-14 days (1 week)		
1st day	Devotions I, II y III:	
Chills and fever	Yes (Fever 40°C at 3rd day)	Yes
Fever		
Headache	Yes	Yes
Myalgia		Yes
Flashing lights (phosphenes)	Yes	Yes (eyes are injected with blood and tear incessantly)
Face flushing		Yes
Hematuria	Yes	Yes (urine is red and cloudy)
Loss of appetite		
Sleeplessness	Yes (Meditation XV)	Yes
4th-7th (5th) Day		
Rash: axillary and upper trunk	November 26-27 (Meditations XIII)	Yes
non-confluent centrifuge, pink		
that does not disappear under pressure		
In days: maculopapular, dark, petechiae and confluent and invades the whole body except		
face, palms, and soles		
Deafness and tinnitus	Yes	Yes
Nonproductive cough		
Radiology pulmonary infiltrates		
Meningism		
Confusion		
Delirium	Yes	Yes
Coma		Yes
2 weeks (12th-14th days)		
Fever ends in lysis	December 6 (Devotions XIX and Meditation XX)	
Recover mental disturbance		
Typhus mortality:		
<20 years: <5%		
40 years: 10-15%		
50 years: 50%		
>60 years in general fatal		
2-3 months	Meditations XXI	
Convalescence	Devotions XXI (cups and bleeding treatment)	

region that is next to the heart, I certainly believe that this is the oil that Mathiolo from Siena describes against poisons, but, in truth, it is too warm, so if it is a burning fever, it should be tempered with some cold medicine. But in the absence of this oil, scorpion oil in which blessed thistle, decree and scorzone would have been useful. Well, yes, to attract the humors from the inside outwards in the burning fever, Aecio praise the oil or water, in which nitro had been poured, it should not be denied that to seek a similar action the predicted oil must be useful. Add the fact that, by a certain antipathy, he opposes poison. ("Ahora también se tiene por gran secreto cierto óleo, traído desde Florencia, con el que dicen se deben ungir las palmas y las plantas de los pies, y también las muñecas y la región que está junto al corazón. Ciertamente creo que se trata del oleo que contra los venenos describe Mathiolo de Siena; pero, en verdad, éste es demasiado cálido, por lo cual, si se trata de una fiebre ardiente, se debería atemperar con algún medicamento frío. Pero a falta de este aceite, será útil el aceite de escorpiones en el que se hubiese echado cardo bendito, dictamo y escorzonera. Pues si, para atraer los humores desde el interior hacia el exterior en la fiebre ardiente, Aecio alaba el aceite o el agua, en la que se hubiese vertido nitro, no se debe negar que para procurar una acción similar ha de ser útil el oleo predicho. Añade el hecho de que, por cierta antipatía, se opone al veneno.") [18].

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The Spanish flu and the fiction literature

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Biólogos españoles ante el microbio de la gripe española.

https://es.wikipedia.org/wiki/Pandemia_de_gripe_de_1918

Resumen

Esta revisión se centra en la literatura de ficción en la que la gripe española se representa como un aspecto anecdótico o histórico y el efecto sobre el autor o el personaje ficticio. Examinamos este período sociocultural en la prensa y prin-

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cipalmente en obras literarias anglosajonas y de otros países, incluida la literatura española y latinoamericana que no está muy representada en algunas revisiones internacionales sobre el tema. Además, incluimos libros sobre las pandemias de influenza anteriores y posteriores a la gripe española.

Palabras clave: Gripe española, gripe, Pandemia, medicina en la literatura

Introduction

"I had a little bird.

Its name was Enza.

*I opened up the window,
And in flew Enza."*

(Old nursery rhyme)

Flu has caused global pandemics over the centuries. In the 18th century, the influenza pandemic between 1708-1709 was not fairly assessed [1]. During epidemics and pandemics in 1847-1848 and 1889-1893, it was recognized that the respiratory complications of flu could greatly elevate the death rate [2]. Another pandemic has been in 2005, the avian flu, with the emerging cultural patterns and interpretative repertoires and metaphors [3].

The Spanish flu, in 1918, killed 50-100 million people in the World and, in Spain, caused as many deaths as in the Spanish Civil War. About the Spanish flu, there are different studies, this is not an exhaustive list, in the world [4-13] and in Spain [14-17] with its spatial-temporal patterns [18].

This pandemic has been reviewed from different points of view: sociological or historical and the origin of the flu [19-21].

This review focuses on the fictional literature in which influenza is represented either as an anecdotal or as a historical aspect and the effect on the author or fictional character. In neither case it is an exhaustive review, but it focuses mainly on Anglo-Saxon literary work and from other countries, including Spanish and Latin American literature that is not very represented in some international reviews on the subject. All literature books are cited in the Tables with authors and their books in English and Spanish and we include books about the previous and subsequent influenza pandemics to the Spanish flu.

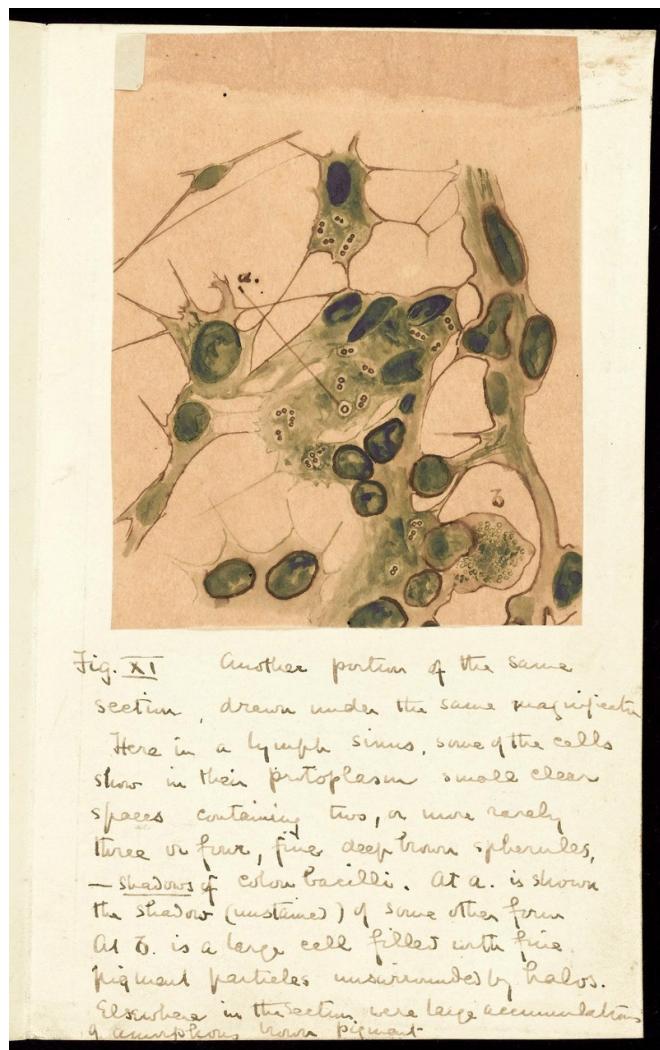


Fig. XI Another portion of the same section, drawn under the same magnification. Here in a lymph sinus, some of the cells show in their protoplasm small clean spaces containing two, or more rarely three or four, fine deep brown spherules - shadows of colon bacilli. At a. is shown the shadow (castings) of some other form. At b. is a large cell filled with fine pigment particles surrounded by halos. Elsewhere in the section were large accumulations of transparent brown pigment.

Drawing of the 1918 Influenza: Lymph sinus, some of the cells shown in their protoplasm - small clean spaces containing two, three or four fine deep brown spherules - shadows of colon bacilli. John George Adami.

Disponible en: <https://wellcomecollection.org/images?query=flu>

The name of influenza.

The name of influenza is believed to have been used in the city of Florence in the 14th century (by Villani in 1358), considering that the disease was due to the «influenza di freddo» (to the cold) or «di stelle» (to the stars, by the astrological theories in those times) [22-23]. In 1742, Sauvage use the name «grippe». The terms «gripper» (French), «to grip» (English) or «greifen» (German) mean in Spanish «agarrar, atrapar».

Perhaps the abrupt way of presenting this disease on many occasions has justified the name «grippe», that in Spanish it was written «grippe» until at least 1925, and then with a single p. At the beginning of the Tolstoi's book, "War and Peace" (1869), a novel that is the chronicles of the French invasion of Russia and the impact of the Napoleonic era on Tsarist society, Tolstoi writes that: "On a July day in 1805... Anna Pávlovna had been coughing for a few days; it was a "grippe", as she said ("grippe" was a new word

then, that very few used").

Another word in Spanish was "trancazo" ("strike with a bar"), "tranca" means "iron or wood bar" and from this word derives "trancazo" that is a colloquial name for flu.

Other nicknames were Spanish flu or Spanish Lady, also French flu. It appears that French journalists had, initially, called it the "American flu"; but the fact that the American soldiers were his allies in the warlike conflict advised not to assign such a link to them; and as there were also cases of influenza in Spain, it was decided to generalize the use of this expression, which was later assumed by Germans and others [22].

Another most popular name in Madrid, was the "Solda-

do de Nápoles" ("Naples soldier"), a popular song in the zarzuela (popular musical genre or "género chico" in Spain) called *La canción del olvido* (The forgotten song) due both, were "highly contagious".

Today, there are many authors who avoid such a name (the Spanish flu) and they aptly refer to it as the "1918-1919 influenza pandemic".

The origin of the Spanish flu pandemic. There are several theories about the origin: a) the origin could be in China and after in Philippines and the USA and the army in Europe. b) English soldiers in France in 1916, the disease soon spread to other neighbouring countries (England, Italy, Spain) and to more distant ones (the USA) as a consequence of the displacement of the troops [22]. c) the regular arrival of Chinese workers to Africa and Europe, throughout those years, could have been the origin of an earlier introduction (coinciding with the war). And this is a very plausible interpretation due to the circumstance that the Spanish Royal Family and the Spanish ministers suffered the flu, in the month of May 1918, and could contribute to this unjustified name [21].

The flu in the Spanish King is debated, the majority of scholars think that it was a flu. For Cervera C [24] was scarlet fever: between September and October 1918, Alfonso XIII had to interrupt his work and his conversations with Germany to stop sinking Spanish ships in the Atlantic. The "ABC" newspaper reported on September 30, 1918 that «H. M. the King is sick with the flu. The attack is mild, and although his majesty has a fever, so far the ailment is of no importance». On October 4, however, the official party pointed out a fact that indicates that the King did not suffer from the flu: a series of "scarlet fever eruptions of normal evolution" on



Charles Kean, ill with flu. Coloured etching.

Disponible en: <https://wellcomecollection.org/images?query=flu>

his body. Skin rashes that do not fit with the usual symptoms of the Spanish flu, in the same way that the fact that ten days later the press continued to report mild fever and more skin problems does not coincide with the picture of this disease for Cervera C [24]. The first signs of scarlet fever can be flu-like symptoms, including a high temperature of 38 °C or above, a sore throat and swollen neck glands.

It could be probable that these two theories may be both true, the flu can later in the course of the disease be complicated by scarlet fever in a percentage of patients. Scarlet fever circulating with chickenpox or influenza can be particularly dangerous. Another explanation is, although infrequently, the flu can take with an exanthematous skin rash.

The treatment and vaccines of the Spanish flu pandemic. The treatment was based in several substances and bacterial vaccines in relationship with the belief in the bacterial theory of disease: "Bacterial vaccines, some were derived exclusively from the Pfeiffer's bacillus, the presumed cause of influenza, were widely used, while others contained one or more other organisms found in the lungs of victims" [25].

The treatment included "symptomatic therapy with salicylates and quinine and codeine, for pneumoniae intramuscular or intravenous silver or platinum colloid, digitalis, alcamphor oil, or adrenaline, and bleeding" [26].

In the Espasa encyclopedia (popular Spanish Encyclopedia), it was cited that "the serums and vaccines inspired by bacterial associations are now abandoned"; and that "strychnine, oxygen inhalations, arsenicals, salicylates and bleeding are prescribed" [27].

Other treatments were vapors from aromatic plants, purgatives, sweats, medicinal plants, and hydrotherapy, strong showers with alternating hot and cold water, iodine, leeches, cardenal brand water filter to trap all microbes. Ma-rañón advocated to use a light antiseptic nasal douches twice a day [19].

Loeb L [28] found “striking similarities between orthodox and commercial suggestions for treating influenza” in The Lancet and the British Medical Journal between 1889 and 1919.

The spanish flu and the press

The first reference in the Spanish press to an epidemic outbreak in the Spring of 1918 can be found in the Madrid newspapers “ABC” and “El Sol” (*The Sun*), the latter one published its first headline about the subject on 22 May 1918 [18]: “What is the cause? An epidemic in Madrid. In June 2 of 1918, “*The Times*” in Madrid, talked about an epidemic with the name the Spanish flu and this name began to circulate and in August the ‘*Journal of the American Medical Association*’ dedicated its number to the “Spanish flu” [18]. An important book about the Spanish flu and the press is that of Davis RA [19].

In the Spanish press, it was the subject of attention with different comic strips that are not included in this work but that can be found in the digital newspaper archives [29a]. These comic strips remember the previous coloured engraved satires, in the Wellcome collection, such as “An Address of thanks from the Faculty to the Right Hon.ble Mr. Influenzy for his kind visit to this country” (by Temple West) (<https://wellcomecollection.org/works/kn2xshu9>) [29b].

The spanish flu and the religion

The God punishes is a typical approach to the plagues and pandemics. This is just one example: In León, Spain, during the Spanish flu in his prayer “*Pro tempore pestilentiae*” (“For the times of pestilence”), the bishop: “exhorts their parishioners to repent of their guilt because sins are the cause of scourging with that God punishes us”. Among the reasons cited by the bishop to explain the incidence of influenza are the desecration of holidays, blasphemy, obscene and immoral amusements and debauchery [29a]. And in Zamora (city in Castilla), with one of the highest mortality, there were a lots of Mass and the consequent spreading of the flu.

Why does the literature is scarce in the influenzae?

Instead the literature of the plague (Boccaccio’s *Decameron*, Camus’s *The plague*), or tuberculosis (such as Thomas Mann’s *The Magic Mountain*), the 1918-1919 pandemic have hardly been the subject of novel or realistic descriptions by writers. Could it be the coincidence in the time of the First World War with the most fatal stages of the pandemic that contributed to the desire not to insist more on the evocation of so many sufferings, and thus favor a deliberate forgetfulness? Stalin said: “*a single death is a tragedy; a million deaths is a statistic*”, the little literature in the 1918 pandemic, perhaps was due to the “*flu overwhelmed language in ways that World War I did not*” [31]. The Spanish flu is called a “*forgotten pandemic*” [31], that’s the difference for example, between literature of the Spanish flu and the literature of the World War I and the poets of the war. Or for F. Scott Fitzgerald, Gertrude Stein, Ernest Hemingway and John Dos Passos, the flu did not represent a topic in their novels, the Great War could represent the newness material to build your novels, whereas the pandemic represented historical continuity of the past plagues and this matter was not modern for their literature [32].

In the essay “*On Being Ill*” (1926), Virginia Woolf lamented that flu hadn’t become a central theme in literature [33].

Susan Sontag pointed out, “*novelists tend to focus on illnesses that can be “used” as metaphors, plague with its medieval aura, cancer with its mysterious provenance, tuberculosis with its rosy-cheeked energy and Dickensian associations. These illnesses, unlike influenzae, carry built-in mythologies primed for literary appropriation*” [33].

For Hovanec [34a]. “*The flu acts as metaphor for the dehumanizing and denaturalizing aspects of modern life, which take on many forms*”.

But, since Woolf first complained about the lack of novels devoted to influenza, a small body of English, Spanish -language literature and other languages about the virus has arisen, some of them in relationship with the World War I. “*The resurgence of interest in the flu during the 1930s may have been influenced by new developments in virology and influenza research*” [34a].

English literature (Tables 1-3)

Belling [31] divides fiction representing the pandemic in two groups: the authors with “*experienced*” disease, or au-

■ Table 1

AMERICAN AND BRITISH AUTHORS AND THEIR BOOKS (IN CHRONOLOGICAL ORDER) ABOUT THE 1918 INFLUENZA PANDEMIC (THE SPANISH FLU)	
Title of book in English and Spanish (year)	Author (dates)
'Letter to Susan Owen, 24 June 1918', in H. Owen and J. Bell (eds), <i>Wilfred Owen Collected Letters</i> (London: Oxford University Press, 1967), 560.	Wilfred Owen (1893-1918)
Sweeney among the Nightingale (Poem) (1918).	T. S. Eliot
Sweeney entre el ruiseñor. Not translated	(1888- 1965)
This side of the paradise (1920)	F. Scott Fitzgerald
A este lado del paraíso. Trad. Hernán Poblete Varas. Ed.	(1896-1940)
Three soldiers (1921)	John Dos Passos
Tres soldados. Trad. Mary Rowe. Ed. Debolsillo, 2014	(1896-1970)
The Fox (1922)	D.H. Lawrence
La mariquita. El zorro. Trad. Pablo Mañé. Ed Los Libros de Plon 1980.	(1885-1930)
One of ours (1922)	Willa Sibert Cather
Uno de los nuestros (Trad. Beatriz Bejarano del Palacio). Nòrdica Ed.2013	(1876-1947)
The green hat (1924)	Michael Arlen
El sombrero verde. Trad. Eduardo de Guzmán. Ed. Lauro 1946	(1895-1956)
On being ill (1926)	Virginia Woolf
De la enfermedad. Trad. Ángela Pérez. Ed. Centellas 2014.	(1882-1941)
Mrs. Dalloway (1925)	
La Señora Dalloway Trad. Andrés Bosch Alianza Editorial, 2012	
Look homeward, Angel; A story of the buried life (1929)	Thomas Wolfe (1900-1938)
El ángel que nos mira (Trad. José Ferrer Aleu). Valdemar Ed. 2009	
Death in the afternoon (1932)	Ernest Hemingway
Muerte en la tarde. Trad. Lola Aguado, Ed Planeta, 1993	(1899-1961)
The doctor's son (1935)	John O'Hara
El hijo del doctor. Not translated)	(1905-1970)
Pale horse, Pale rider (1936)	Katherine Anne Porter (1890-1980)
Pálido caballo, Pálido jinete (Trad. Maribel de Juan). Círculo de Lectores Ed. 1992	
They came like swallows (1937)	William Keepers Maxwell (1908-2000)
Vinieron como golondrinas (Trad. Gabriela Bustelo). Libros del Asteroide Ed. 2007	
Other Maxwell's books with flu aspects are: Ancestors (1971), So Long, See You Tomorrow (1996), and Time Will Darken It (1948)	
Letter to Lord Byron, poem in Letters from Iceland (1937)	W. H. Auden
Carta a Lord Byron. Not translated	(1907-1973)
The fall of Rome (1947)	
La caída de Roma, en Canción de cuna y otros poemas. Trad. Eduardo Iriarte. Ed. Debolsillo 2016	
The Big Rock Candy Mountain (1938)	Wallace Stegner (1909-1993)
La montaña Big Rock Candy. Not translated	
Goodbye to Berlin (1939)	Christopher Isherwood
Adios a Berlin. Trad. María Belmonte. Ed. Acantilado 2014	(1904-1986)
The sixties. Diaries volume two: 1960-1969	
Autobiografía. Not translated	

■ Table 1 (cont.)

AMERICAN AND BRITISH AUTHORS AND THEIR BOOKS (IN CHRONOLOGICAL ORDER) ABOUT THE 1918 INFLUENZA PANDEMIC (THE SPANISH FLU)	
Title of book in English and Spanish (year)	Author (dates)
The Case of the Caretaker (1942). In: Miss Marple's Final Cases and Two Other Stories El caso de la vieja guardiana. In: Tres ratones ciegos y otras historias. Ed. Molino 1957	Agatha Christie (1890-1976)
Hallowe'en Party (1969) (Hercule Poirot) Las manzanas. Trad. Alberto Coscarelli. Ed RBA 2011	
Memories of a catholic girlhood (1946) Memorias de una joven católica (trad. Andrés Bosch). Lumen Ed. 2019	Mary McCarthy (1912-1989)
The Autobiography of William Carlos Williams (1951) Autobiografía. Not translated	William Carlos Williams (1883-1963)
Anthony Burgess, Little Wilson and Big God: being the first part of the confessions of Anthony Burgess, London, Heinemann, 1987, p.18.	Anthony Burgess (1917-1993)
Anthony Burgess, Little Wilson y el Gran Dios: Primera parte de las confesiones de Anthony Burgess. Not translated	
Unity (1918). Talonbooks, Vancouver 2002. Unidad (1918). Not translated	Kevin Kerr (1968-) (Canada)
Wickett's remedy (2005) El remedio de Wickett. Not translated)	Myla Goldberg (1971-)
This time of dying (2006) Tiempo de muerte. Not translated	Reina James (1947-)
October mourning (2006) Luctuoso octubre. Not translated	James Rada, Jr (-)
Kyrie (Messenger) (2007) Kyrie. Not translated	Ellen Bryant Voight (1943-)
The last town on earth (2007-) La última ciudad en la tierra. Not translated	Thomas Mullen (1974-)

tobiographical works, and those with “registered rather than experienced” motifs.

The first group: authors who were alive at the time (“experienced”) (table 1)

The best known is Katherine Anne Porter’s novella *Pale Horse, Pale Rider*.

a) At the beginning, was considered not a serious infection. On 24 June 1918, the war poet Wilfred Owen composed an ironic letter to his mother and considered the flu something of a joke: “STAND BACK FROM THE PAGE! and disinfect yourself” [35].

b) T. S. Eliot makes a possible reference to the Spanish flu in his poem *Sweeney among the Nightingale*: “The person in the Spanish cape”. Eliot and Vivien (his wife) caught the disease in November 1918 and he was working in his masterpiece poem “The waste land”.

c) D.H. Lawrence suffered influenza in 1919, the flu nearly killed him, in a town in the United Kingdom, after the end of the World War I. In his book, *The Fox*, the soldiers begin to return home, and the shadow of the Spanish flu glides in the environment.

d) F. Scott Fitzgerald. He fell ill while finishing his novel *This side of the paradise* (1920):

“—He represented Beatrice’s immortality, also love-affairs of numerous dead men who surely had never thought of him... if it wasn’t appendicitis, influenza maybe”.

e) Michael Arlen, in *The green hat*, the protagonist was inspired in the heiress Nancy Cunard, who caught the flu in 1919 with pneumonia and depression.

f) Virginia Woolf wrote an essay on flu, *On being ill*, and she describes the mental effects of disease. Her mother had died of influenza in 1895. In her diary writes: “Influenza, which

■ Table 2A

OTHER ENGLISH BOOKS (IN CHRONOLOGICAL ORDER) ABOUT THE 1918 INFLUENZA PANDEMIC (THE SPANISH FLU) AND FLU IN GENERAL		
Title of book in English (year)	Author	Plot's place
Hero Over Here: A Story of World War I (1992)	Kathleen V. Kudlinski	World War I (Youth literature)
Gracie's Angel (The Latter-Day Daughters Series) (1996)	Launi K. Anderson	Salt Lake City, USA
A Time of Angels (1997)	Karen Hesse	USA (Youth literature)
The Flu Epidemic (1998)	JoAnn A. Grote	Youth literature
Ghost Dance (1999)	Mark T. Sullivan	-
Ponies from the Past (Pony Pals #31) (2001)	Jeanne Betancourt	USA (Youth literature)
When the War Came Home (2002)	Sarah Ell	Auckland, New Zealand
A Doctor Like Papa (2002)	Natalie Kinsey-Warnock	Vermont, USA (Youth literature)
Marven of the Great North Woods (2002)	Kathryn Lasky	USA (Youth literature)
The Name of the Child (2002)	Marilynn Reynolds	Canada (Youth literature)
A Doctor Like Papa (2002)	Natalie Kinsey-Warnock	Vermont, USA (Youth literature)
Marven of the Great North Woods (2002)	Kathryn Lasky	USA (Youth literature)
A different sort of real: the diary of Charlotte McKenzie, Melbourne 1918-1919 (2002)	Kerry Greenwood	Melbourne, Australia (Youth literature)
When the War Came Home (2002)	Sarah Ell	Auckland, New Zealand
The Trouble with Jeremy Chance (2003)	George Harrar	Boston, USA
Joshua's Song (2003)	Joan Hiatt Harlow	Boston, USA (Youth literature)
The Sailmaker's Daughter: A Novel (2003)	Stephanie Johnson	Suva, Fiji
The Memory Quilt: A Tale of Friends And Family Lost And Found In The Great Cloquet Fire Of 1918 (2003)	Pamela J. Erickson	USA (Youth literature)
A Bird Named Enza (2003)	Dawn Meier	Story based in the influenza 1918
Divining women (2004)	Kaye Gibbons	USA
And in Flew Enza (2004)	Sherri Fuchs	Cincinnati, USA
Voices Airy (2004)	Catherine Karp	San Diego, USA
The Serpent's Tooth (2006)	Michelle Paver	Scotland, UK
If I Die Before I Wake: The Flu Epidemic Diary of Fiona Macgregor (2007)	Jean Little	Canada in 1918
Loving and Losing (2007)	Pamela Oldfield	England
Upon the Mountains (2007)	Gale Sears	Salt Lake City, USA
The Heirs of Ravenscar (2008)	Barbara Taylor Bradford	UK
War's end (2008)	Victoria Bowen	Australia
Hellie Jondoe (2009)	Randall Platt	USA (Youth literature)
Fire Angels (2009)	Joseph Richardson	Florida, USA
Fever Season (2009)	Eric Zweig	Montreal, Canada (Youth literature)
Pushin' Up Daisies (A Black Swan Historical Romance, #2) (2009)	Carolyn Brown	Arkansas, USA
Winnie's War (2009)	by Jenny Moss	Texas, USA (Youth literature)
Hellie Jondoe (2009)	Randall Platt	USA (Youth literature)
Fever Season (2009)	Eric Zweig	Montreal, Canada (Youth literature)
Fire Angels (2009)	Joseph Richardson	Florida, USA
The Keening (2010)	A.Lafaye	Maine. USA
Ambitious Love (2010)	Rosie Harris	Cardiff, UK
All That We Are (2010)	Elizabeth Lord	London, UK
An American Family Myth (2010)	Norine G. Johnson	Louisville, USA
Diamond Ruby (2010)	Joseph Wallace	New York, USA

■ Table 2B

THER ENGLISH BOOKS (IN CHRONOLOGICAL ORDER) ABOUT THE 1918 INFLUENZA PANDEMIC (THE SPANISH FLU) AND FLU IN GENERAL		
Title of book in English (year)	Author	Plot's place
Wings of a Dream (2011)	Anne Mateer	Texas, USA
Like the Willow Tree: The Diary of Lydia Amelia Pierce, Portland, Maine, 1918 (2011)	Lois Lowry	Portland, Maine, USA
Home by Morning (2011)	Alexis Harrington	Oregon, USA (Youth literature)
Death and the Spanish Lady (2011)	Carolyn Morwood	Melbourne, Australia
A Bird Named Enza (2011)	Joseph J. Bakewell	USA
Palace Beautiful (2011)	Sarah DeFord Williams	Salt Lake City, USA (Youth literature)
Enza (2012)	Kristy K. James	
Foul Ball in Beantown (2012)	G.S. Rowe	Boston, USA
A Bride Sews with Love in Needles, California (2012)	Erica Vetsch	France and USA
Yesterday's Dead (2012)	Pat Bourke	-
Pandemic: Spanish Flu, 1918 (2012)	Sally Stone	New Zealand
The Flu (2012) (there is a confusion between bacteria and virus)	Jacqueline Druga	Ohio, USA
Yesterday's Dead (2012)	Pat Bourke	
Beret (2012)	Chris Womersley	Nueva Gales del Sur, Australia
Dunaway's Crossing (2013)	Nancy Brandon	Savannah, USA
Innocents into War (2013)	Murray Rowlands	New Zealand
The Wings of Morning (2012)	Murray Pura	Philadelphia, USA
Peacetime for Alice (Our Australian Girl) (2012)	Davina Bell	Melbourne, Australia (Youth literature)
A Bride Sews with Love in Needles, California (2012)	Erica Vetsch	France and USA
In the shadow of blackbirds (2013)	Cat Winters	
An Unmarked Grave (Bess Crawford, #4) (2013)	Charles Todd	France
The Romanov Cross (2013) / La cruz de los Romanov. Trad. Valentina Reyes. Ed. Algaid, 2014.	Robert Masello	Alaska
Horrors of History: People of the Plague: Philadelphia Flu Epidemic 1918 (2014)	T. Neill Anderson	Philadelphia, USA Youth literature
The given day (2008)/ Cualquier otro día. Trad. Carlos Milla Soler y Ferrer Marrades. RBA Libros, 2014.	Dennis Lehane	Boston, USA
The Goodbye Season (2015)	Marian Hale	
In a Gilded Cage (Molly Murphy Mysteries #8) (2015)	Rhys Bowen	New York, USA
The uninvited (2015)	Cat Winters	USA
A beatiful posion (2017)	Lydia Kang	New York, USA
One for Sorrow: A Ghost Story (2018)	Mary Downing Hahn	USA (Youth literature)
Light Over Water (ebook)	Noelle Carle	Maine, USA

rages all over the place, has come next door.” “Rain for the first time for weeks today and a funeral next door; dead of influenza”. She had several bouts of influenza: in 1918 was kept in bed 8 days, in 1920, 1922, 1923 and 1925.

In her book, *Mrs. Dalloway*, there are two flu quotations: “For having lived in Westminster—how many years now? Over twenty, —one feels even in the midst of the traffic, or

waking at night, Clarissa was positive, a particular hush, or solemnity; an indescribable pause; a suspense (but that might be her heart, affected, they said, by influenza) before Big Ben strikes”.

“Thus, when she said in her offhand way “How’s Clarissa?” husbands had difficulty in persuading their wives and indeed, however devoted, were secretly doubtful themsel-

■ Table 3

AMERICAN AUTHORS AND THEIR BOOKS (IN CHRONOLOGICAL ORDER) ABOUT THE INFLUENZA PANDEMIC (GENETIC MANIPULATION OF THE VIRUS AND BIOTERRORISM)		
Title of book in English and Spanish (year)	Author (dates)	Plot
Ninth day of creation (1998) El noveno día de la creación. Not translated	Leonard Crane	Genetic manipulation of the virus and bioterrorism
The first horseman (1998) El primer jinete del Apocalipsis. Trad. Sofía Coca y Roger Vázquez de Parga. Ed. Planeta, 2001	John Case	Genetic manipulation of the virus and bioterrorism
Pandemic (2005) Pandemia. Trad. Teresa Camprodón. Ed. Plaza y Janés. 2006	Daniel Kalla	Genetic manipulation of the virus and bioterrorism
The thin white line (2008) La delgada línea blanca. Not translated	Craig DiLouie	Avian influenza pandemic
Hidden and imminent dangers (2009) Peligros ocultos inminentes. Not translated	D. W. Hardin	Avian influenza pandemic
The Jakarta Pandemic (2010/2012) La pandemia de Jakarta. Not translated	Steven Konkoly	Avian influenza pandemic
The Stand (1978) Apocalipsis. Trad. Lorenzo Cortina. Ed. DeBolsillo, 2003	Stephen King	Post-apocalyptic pandemic
Flu (2010), Fever (2011) Pandemia. Dolmen Ed.2011	Wayne Simmons	Belfast pandemic and Zombi story
Station Eleven (2014) Estación once. Traductor: María del Puerto Barruetabeña Díez. Ed. Kailas 2015	Emily St. John Mandel	Pandemic in Michigan, USA
Pandemia (2015) (in French) Pandemia. Trad. Joan Riambau Möller. Ed. Planeta, 2017	Franck Thilliez	-
The Cobra Event (1998) Operación Cobra. Trad. Javier Guerrero Jimeno. Ed. B 2001.	Richard Preston	A terrorism release of a fictional virus (not influenza) combining various qualities of different diseases upon New York City.

ves, of her interest in women who often got in their husbands' way, prevented them from accepting posts abroad, and had to be taken to the seaside in the middle of the session to recover from influenza".

g) Thomas Wolfe, *Look homeward, Angel; A story of the buried*. This is his first novel, a semi autographic story, covers the span of time from Eugene's birth in 1900 to his definitive departure from home at the age of 19. The setting is a fictionalization of his home town of Asheville, North Carolina, called Altamont, Catawba in the novel. Brother's writer died with influenza.

h) John O'Hara, in a short story *The doctor's son*. His father worked during the flu outbreak in the Pennsylvania mining and O'Hara accompanied his father on house calls. Here, O'Hara, as the narrator, adopts a point of view of observer not such as a personal or familiar victim also dramatizes another major public health risk: the gathering of crowds [34].

i) While *Pale Horse, Pale Rider* represents the best literature of the flu and perhaps the paradigm of the Spanish flu, there was a lack the interest on it, maybe the reason is the traumatic experience just of a person [36] and without importance in comparison to the World War I. Katherine Anne Porter, the author, suffered influenza at twenty eight years old in 1918, and her father had planned in advance her funeral. Twenty years later, she published *Pale Horse, Pale Rider*, a novella in which her autobiographical protagonist, Miranda, almost dies of the flu. The story closely follows an account of Porter's own illness and recovery during the pandemic, when she was working as a reporter in Denver.

j) William Keepers Maxwell wrote *They came like swallows*. A novel about a Midwestern family that falls ill when the flu reaches their town. Maxwell describes the fever and the sleep. Mother's writer died by influenza and pneumonia and he caught the flu in 1918: "My aunt put her hand on my

forehead and got up from the table and took me upstairs and put me to bed because I had a high fever. And I think what happened was that I slept and slept and slept and slept". That is revisited too in other Maxwell's books: *Ancestors, So Long, See You Tomorrow, and Time Will Darken It*. Uncle Wilfred, in *They came like swallows*, insists that the flu was purposely spread by Germans in U-boats, and seems familiar for us now, with the SARS Cov-2 and China.

k) William Carlos Williams, *The autobiography of William Carlos Williams*. Poet and doctor during the time he turned to the exercise of his profession wrote that, we doctors made up to sixty visits a day. Several of us lost consciousness, one of the young people died, others were infected and we had nothing that was effective in controlling "the potent poison that was sweeping the world". "*The war and the influenza epidemic, in particular, provided a collective trauma, Williams infected twelve people in his immediate family, including his wife and children*" [37].

l) Mary McCarthy wrote *Memories of a catholic girlhood*. She suffered influenza at six years, in 1918, and her deceased grandmother, mother and father.

m) Anthony Burgess, in *Anthony Burgess, Little Wilson and Big God: being the first part of the confessions of Anthony* wrote: "*In early 1919 my father, not yet demobilized, came on one of his regular, probably irregular, furloughs to Carisbrook Street to find both my mother and sister dead. The Spanish Influenza pandemic had struck Harpurhey. There was no doubt of the existence of a God: only the supreme being could contrive so brilliant an afterpiece to four years of unprecedented suffering and devastation. I apparently, was chuckling in my cot while my mother and sister lay dead on a bed in the same room*".

The second group: "registered rather than experienced" (table 1)

They are authors with recent historical fictions that attempt to reconstruct accounts of the pandemic such as in 2006: Thomas Mullen's *The Last Town on Earth* and Myla Goldberg's *Wickett's Remedy*.

a) Willa Sibert Cather, *One of ours* (Pulitzer Prize in 1923). She suffered influenza. The book is a contemporaneous literary accounts of the 1918 pandemic, on American soldiers aboard the fictional troop ship Anchises, bound for France.

b) Craig Dilouie, *The Thin White Line*. Fictionally documented history of an avian flu pandemic in 2012. He describes the fever and the sleep: "...unconscious. I felt like Rip Van Winkle, sleeping through history."

c) Thomas Mullen, in *The Last Town on Earth*, describes

the bleeding, cyanosis and the quarantine in Commonwealth, a small town in the Pacific Northwest, to keep the influenza out of the town.

d) Myla Goldberg, *Wickett's Remedy*. She describes the death of her family. Both Goldberg and Mullen describe pulmonary congestion as a creature inhabiting the lungs.

e) Ernest Hemingway, *Death in the Afternoon*. He describes a Spanish flu death choking on snot.

f) W. H. Auden wrote *Letter to Lord Byron*, poem in *Letters from Iceland*, and another poem *The fall of Rome: "Unendowed with wealth or pity,/ Little birds with scarlet legs,/ Sitting on their speckled eggs,/ Eye each flu-infected city"*.

Auden was thinking in the Spanish flu.

g) Wallace Stegner, *The Big Rock Candy Mountain*, is a semi autographic novel. In 1916 he was trapped one day in the school due to the low temperatures.

h) Christopher Isherwood in *Goodbye to Berlin*: "The whole city lay under an epidemic of discreet, infectious fear. I could feel it, like influence in my bones". Christopher Isherwood's time in 1930s Berlin, describes the pre-Nazi Germany. The book was adapted into the musical and the film *Cabaret*.

In your diaries, *The sixties. Diaries volume two: 1960-1969*: "I found Dorothy well but shaken by flu...Gerald and Michael had flu..." (January 1962). "...but Michael won't let me see him because I might give Gerald flu..." (March 1966).

i) Agatha Christie, *The Case of the Caretaker* (Miss Marple's novel) and *Hallowe'en Party* (Hercule Poirot's novel). Finding A. Christie in bed with influenza, her mother suggested she write down the stories she was so fond of telling. And so, began her literary career.

The Case of the Caretaker (Miss Marple cases): "Miss Marple smiled at him wanly from pillows. 'I suppose, really, that I'm better,' she admitted, 'but I feel so terribly depressed. I can't help feeling how much better it would have been if I had died. After all, I'm an old woman. Nobody wants me or cares about me.'

Doctor Haydock interrupted with his usual brusqueness. "Yes, yes, typical after-reaction of this type of flu. What you need is something to take you out of yourself. A mental tonic."

Hallowe'en Party (Hercule Poirot novel): "He has not got 'flu,' said Hercule Poirot. 'He has only a nasty cold. Everyone always thinks they have 'flu. It sounds more important. One gets more sympathy. The trouble with a catarrhal cold is that

it is hard to glean the proper amount of sympathetic consideration from one's friends."

j) Others:

-Kevin Kerr, *Unity* (1918), a theatre work about the return of the soldiers in the World War I and the presence of the Spanish flu

-James Reina, *This time of dying and October mourning*

-Ellen Bryant Voight, *Kyrie*, cycle of poems, is part of the 2007 poetry compilation "Messenger" that gives voice to American victims of the Spanish flu.

k) Below is a short list of other writers with an experience with the Spanish flu:

-Raymond Chandler Chandler was sent to the infirmary twice in England, in July and October 1918. Each time, he recovered after six days. The digitized military records reveal two bouts with influenza during the peak of the deadly pandemic (<http://www.thekeptgirl.com/2017/07/the-clews-from-raymond-chandlers-war.html>).

-Arthur Conan Doyle stopped writing fiction, after losing his son with the Spanish flu, and went to spiritualism.

-Hilda Doolittle was nearly to die with the Spanish flu

-John Dos Passos perhaps saved his life, as he contracted it on a military transport while crossing the Atlantic to fight in Europe.

-Dashiell Hammett enlisted in the United States Army, and in 1918 was afflicted during that time with the Spanish flu and later contracted tuberculosis.

-W. B. Yeast took care of his pregnant wife through the illness

l) Writers died in the Spanish flu pandemic:

-Randolph Bourne, American progressive writer and public intellectual, (December 22, 1918)

-Bernard Capes, British Victorian novelist (2 November 1918)

-Stephen Sydney Reynolds, English writer, (February 14, 1919)

In tables 2A and 2B, we show a list the other authors and books, and in table 3 books in relationship with the genetic manipulation and bioterrorism.

Worldwide literature (Table 4)

a) Johan Olof Wallin, Swedish minister, orator and poet, in his poem *The Angel of Death*: "*Those plagues of night and of desolation*".

b) Leon Tolstoi, *War and Peace*. The plot is in July 1805

c) Sforim, *Tales of Mendele*, describes the flu in Odessa 1st October 1886. In 1918, the first wave of flu affected Russia in May, but it went unnoticed except in Odessa, where with the ongoing Russian civil war, it had a major problem of food shortages and the existence of gangster gangs. Due to its strategic position and suffering from different infections throughout history with quarantines since the time of Catherine the Great, Iliá Mechnikov chose Odessa in 1886 as the first center of disease control (Bacteriological Institute) of Russia with vaccinations against the rage. His assistant Yakov Bardakh continued his work investigating anthrax, typhoid, cholera, malaria and tuberculosis. Bardakh's Jewish origin led to his dismissal and one of his students, Stefansky, was put in his place, but his fame was so great that he was the most famous doctor in southern Russia. The arrival of the Spanish flu (*ispanka*) and other infections such as cholera and typhus made Odessa a chaotic city and many did not want to listen to the rational explanations for the reason for that epidemic, so on October 1 was celebrated the first black wedding (*shvartze khasene* in Yiddish). Sforim recounts the first black wedding in his book: It was a Jewish ritual to protect themselves from deadly epidemics, consisting of looking for a boyfriend and girlfriend among the most disadvantaged in the city (crippled or destitute) and marrying them in a cemetery [20].

d) Géza Csáth, Hungary writer, in the short story *The red-haired girl*: "*I had taken to my bed. I had contracted influenza. In the evening, fever developed. At such times it is as though the air has become as dense as oil, and everything seems to be swimming in a soft warm fluid.... I saw my father hurrying to my bedside as soon as he was awake. He feels my pulse, examines my eyes and throat and then leaves to wash his hands... Having no appetite, I did not eat any lunch, yet my temperature went up again in the afternoon. I was gazing with tired, feverish eyes at the grey winter sky above the blank wall.*"

e) Franz Kafka, Czech Republic, in *Letters to Felice* (1912-1917). He contracted the flu in Prague on October 14, 1918 and while in his sickbed he witnessed the fall of the Austro-Hungarian Empire from his window. "*Getting the fever as a subject of the Habsburg monarchy and recovering from it as a citizen of a Czech democracy was certainly overwhelming, but also a little comical*" wrote his biographer. In: *Letters to Felice* (18-19, XII, 12): "*But, my love, I am writing so calmly here and perhaps you are ill. In the next letter to Schillings Flucht you get to mention the possibility of a flu. By God, my love to whom my life belongs, take care of yourself! I confess that when I think you are sick the first idea that comes to*

■ Table 4

OTHER WORLDWIDE AUTHORS AND THEIR BOOKS (IN CHRONOLOGICAL ORDER) ABOUT THE INFLUENZA	
Title of book in English (Original title) and Spanish (year)	Author (dates) (country)
The Angel of Death (1838). Jefferson Publication, 2016	Johan Olof Wallin (1779-1839) (Sweden)
El angel de la muerte. Not translated	
War and Peace (1869) (Voiná l mir)	Leon Tolstoi (1828-1910) (Russia)
Guerra y Paz. Trad. Lydia Kúper. Ed Mario Muchnik 2010.	
Tales of Mendele. The book peddler (1868-1888) - Trad. English Ted Gorelick and Hillel Halkin. Ed. Dan Miron and Ken Frieden. 1996	Sholem Yankev Abramovich (Mendele Mocher Sforim) (1836-1917) (Belarus)
Historias de Mendele, el vendedor de libros. Not translated	
The red-haired girl (1908)	Géza Csáth (1887-1918) (Hungary)
http://www.radixlab.net/andraslasso/sites/default/files/Hungarian-Short-Stories.pdf	
La chica pelirroja. Not translated	
Letters to Felice (1912-1917) (Briefe an Felice und andere. Korrespondenz aus der Verlobungszeit)	Franz Kafka (1883-1924) (Czech Republic)
Cartas a Felice. Trad.: Pablo Sorozábal. Ed. NØrdica, 2013	
Storm of Steel (1920) (In Stahlgewittern)	Ernst Jünger (1895-1998) (Germany)
Tempestades de acero. Trad. Andrés Sánchez Pascual. Ed. Austral 2015	
Letter from an Unknown Woman (1922) (Brief einer Unbekannten)	Stefan Zweig (1881-1942) (Austria)
Carta a una desconocida. Trad. Berta Conill Purgimon. Ed. Acantilado, 2002	
The Wilko Girls' (1933) (Panny z Wilka)	Jaroslaw Iwaszkiewicz (1894-1980) (Ukrania)
Las Señoritas de Wilko. Trad. Bozena Zaboklicka y José Ramón Monreal. Ed. Cátedra. 1993	
Love and Death (Ai to Shi) (1939) Trad. William F. Marquardt. Twayne Publishers, New York 1958.	Saneatsu Mushanokōji (1885-1976) (Japan)
Amor y Muerte. Not translated	
A life Misspent (memoir) (1939)	Suryakant Tripathi (Nirala) (1896-1961) (India)
Una vida malgastada. Not translated	
Cevdet and sons (Not translated in English) (1982) (Cevdet Bey ve Oğulları)	Orhan Pamuk (1952-) (Turkey)
Cevdet Bey e hijos. Trad.Rafael Carpintero. Ed. Random House Mondadori 2013	
The club of angels (1998) (O clube dos anjos)	Luis Fernando Verissimo (1936-) (Brazil)
El club de los ángeles. Trad. Juan Carlos Gentile Vitale. Ed. Plaza y Janés 2001	
Moonstone – The Boy Who Never Was (2013) ("Mánasteinn – drengurinn sem aldrei var til").	Sjón (Sigurjón Birgir Sigurðsson) (1962-) (Iceland)
El chico que nunca existió. Trad. Enrique Bernández. Ed Letras Nórdicas, 2016	

mind is not that you are suffering, but that I may not receive news from you, and immediately, under the harassment of despair, I feel mortified by everything around me. On Tuesday the sore throat gave way to a cold, which certainly represents an improvement in these chills totally unknown to me. Do you still have migraines, though? I am seeing how after closing the last letter you go looking for aspirin and you swallow it: I get chills".

f) Ernst Jünger, *Storm of Steel*, about the Spanish flu.

g) Stefan Zweig, *Letter from an Unknown Woman:* "My son died yesterday. For three days and three nights I have had to fight with the death that surrounded that small and

fragile life. I sat next to her bed for forty hours, while the flu stirred her poor burning body. I held cold cloths over his boiling temple and, day and night, I held his uneasy hands.

I think I have a fever, maybe I even have the flu, which now goes door to door"

h) Jaroslaw Iwaszkiewicz, *The Wilko Girls'*, about the Spanish flu. The story of an ex-military man (Wiktor) who, after fighting in World War I, quelling the communist revolt in Russia, decided to return to his town, where he had a relationship with six sisters who each represent a different type of love. His cousin, the Polish composer Karol Szymanowski composed his opera *King Roger* in a Black Sea resort in

the autumn of 1918 when he contracted the Spanish flu and composed this opera: “*a sleepless Spanish night came to mind*” [20].

i) Saneatsu Mushanokōji, member of the Japanese avant-garde Shirakaba, in *Love and death*, described the death by flu of a young’s girlfriend.

j) Suryakant Tripathi (Nirala) (first modern Hindi poet of India). In 1918 many members of Nirala’s family died of flu and there was not enough wood to cremate them. “*My family disappeared in the blink of an eye*” [20].

k) Orhan Pamuk, *Cevdet and sons*, in the 30s and flu:

“29, Wednesday

On Monday afternoon my fever rose to forty. I fell back into bed. Doctor Izak came. It seems like I’m having a bad flu. Than disaster being here, in bed, tied its own hands!

–He has been with the flu for ten days and it still hasn’t passed. It worries me.

I hope it’s not the flu ... What do they call it? Spanish, Asian or than?”

l) Sjón (Sigurjón Birgir Sigurðsson), *Moonstone – The Boy Who Never Was*. The Spanish flu

m) Sigmund Freud, who in 1920 wrote an essay entitled *Beyond the Pleasure Principle* (1920), in which he introduced the concept of the death drive alongside the sexual drive. At the time, he denied that, the death from the Spanish flu of his daughter Sophie pregnant with their third child (she died of septic pneumonia as a result of the flu), had any influence, but later admitted that perhaps it had something to do with it. The “*fear of contagion*” possibly affecting his scientific reasoning and resulting theories [38].

n) Writers died in the Spanish flu pandemic:

-French poet and proto-surrealist Guillaume Apollinaire (November 9, 1918)

-French writer Edmond Rostand, *Cyrano de Bergerac*’s author (December 2, 1918)

-Margit Kaffka, Hungarian writer and poet, (December 1, 1918)

-Ivan Cankar, Slovenian Writer, (December 11, 1918)

Spanish and latin american literature (Table 5)

The authors talk about the facts: “*I caught the flu*” in their diaries and letters, while mainly about the consequences of the flu in the novels and poems. The most important Spanish

writers in this period and the Spanish flu are Josep Plá, Rosa Chacel and Miguel Delibes

The first group: authors who were alive at the time (“experienced”)

a) Ramón de Valle-Inclán, an Spanish playwright, poet and novelist, Letters: ”*Letter to Don Julio Romero de Torres (a famous Spanish painter)*:

... *I beg your pardon that I did not write to you before thanking you. The cause has been not having Josefina, in all this time, with a health day. All this as a result of a “flu” that left her very delicate*” [39].

b) Josep Plá, *The Gray Notebook*. Josep Plá’s dietary wrote between March 1918 and November 1919. Plá caught the flu that year. Spanish flu caused the faculties to close and Plá returns to his town, Palafrugell, to the family home: “*Since there is so much flu they have had to close the College... The flu continues to relentlessly kill people. In these last days I have had to attend various burials*”.

There are extensive references in the text.

c) Juan Pérez Zúñiga, *The fashionable illness* (Poem). He was a writer, journalist and humorist. He wrote this poem about the Spanish flu that makes us think about the SARS Cov-2 pandemic (different types of theories: a bacillus, causes such as works or the water, a threat coming from outside, politics, and extravagant treatments). In two different centuries the reaction to them has not changed and for this reason we include the complete poem:

“*There is no other way, gentlemen, / to talk a bit today too / of this evil, whose rigors / has all Madrid crazy. / The bacillus of the grip / has sneaked in everywhere, / like, with impudence, / we were talk yesterday. / But it is nonsense the number/ of causes that are blamed, / without rhyme or reason/ the evil that so bends us. / Many are not satisfied / if they don’t blame the insane / bug to the works they do / for, the Metropolitan./ Another seriously say / that is in the water; divine/ pretext of many people to gorge themselves on wine!./ Someone, like Don Felipe, says (and not using your head) / that the gripe bug comes from a part of France/ and war has brought him. / But I don’t know how./ They wouldn’t have allowed, cross the border! / They also say with grace / that the tiny bug / is floating in the air / such as a zeppelin. / And you don’t know who do you blame / the cause of evil Juan Creso! / Well, to the strike committee since he is in Congress. / And there are those who blame the bug/ of Lola Turrón’s little toilet /, which, according to her boyfriend, / she is a filthy like herself / and she scare/ with soap and water / from the same day of/ his first communion. /*

■ Table 5

SPANISH AND LATIN AMERICANS AUTHORS AND THEIR WORKS (IN CHRONOLOGICAL ORDER) ABOUT THE INFLUENZA	
Title of book in English (original title) and Spanish (year)	Author (dates) (country)
The search (1904). Not translated La Busca (1904). Ed. Cátedra, 2010. Other books (Not translated): Weed (1904)- Mala hierba (1904). The cape of the storms (1932) - El Cabo de las tormentas. The resources of cunning (1915) - Los recursos de la astucia. The Buen Retiro's nights (1934)- Las noches del Buen Retiro. The Monleón's priest(1936)- El cura de Monleón. Carnival's follies (1937) -Locuras de carnaval (1937). Family, childhood and youth (1944)- Familia, infancia y juventud	Pio Baroja (1872-1956) (Spain)
Letters (1908) Cartas	Ramón María del Valle-Inclán (1866-1936) (Spain)
The Gray Notebook. Trad. Peter Bush. NYRB Classics, 2014 El cuaderno gris (El quadern gris). Trad. Dionisio Ridruejo y Gloria de Ros. Ed Destino 1996 (It was written in 1918 and 1919 but the first edition was in 1966)	Josep Plá (1897-1981) (Spain)
My Last sigh (2003). Trad. Abigail Israel. Ed. University of Minnesota Press Mi último suspiro. Ed. Taurus, 2018	Luis Buñuel (1900-1983) (Spanish film director)
The fashionable illness (poem) (1918). No translated El mal de moda. In: Cosquillas. Heraldo de Madrid (newspaper), May 27, 1918.	Juan Pérez Zúñiga (1860-1938) (Spain)
The flu (comic play in three acts) (1918). Not translated El trancazo. Ed. R. Velasco, 1918 Double pneumonia (comic play in one act) (1919). Not translated Pulmonía doble. Ed. Correspondencia Militar, 1922 (third edition)	Ramón López-Montenegro (1877-1936) and Ramón Peña (Spain)
Letter of Encarna (Elena Fortún) to Mercedes, since Santander, 8th November 1918 Carta de Encarna a Mercedes, desde Santander. 8 de noviembre de 1918 In: Los mil sueños de Elena Fortún by Marisol Dorao	Elena Fortún (1886-1952) (Spain)
Against the epidemics: People beg for the veil. (a journalistic column in El sol Newspaper, October 24, 1918) Contra la epidemia ¡Se suplica el velo.	Mariano de Cavia y Lac (1855-1920)
Select Greguerías (1919) (Not translated)- Greguerías selectas Other works (not translated): Social gatherings in the café Pombo (1918)- Tertulias en el café Pombo. The holy crypt of the Pombo (1924)- La sagrada cripta del Pombo. The bullfighter Caracho (1926)- El torero Caracho	Ramón Gómez de la Serna (1888-1963) (Spain)
The caciques (1920) La señorita de Trevelez; y Los caciques. De. Castalia, 1997.	Carlos Arniches (1866-1943) (Spain)
The spaces of memory (The literary work of María Teresa León). Not translated Los espacios de la memoria (La obra literaria de María Teresa León). Ed. De la Torre, 1996	Gregorio Torres Nebrera (Spain)
Epistolary Perez de Ayala and Jesús Pabón (1936-1941). Not translated Epistolario (July 5, 1941)	Ramón Pérez de Ayala (1880-1962)
My idolized son Sisi. Not translated Mi idolatrado hijo Sisi (1953). Ed. Destino, 2003.	Miguel Delibes (1920-2010) (Spain)
Epistolary (years 1957, 1961, 1964, 1965, 1966 and 1968) Epistolario. http://www.ffayala.es/epistolario/	Francisco Ayala García-Duarte (1906-2009) (Spain)
Letters. Not translated Cartas 1955-1964. Tomo 2 (Biblioteca Cortázar). Ed. Alfaguara, 2012 Hopscotch. In: Blow-Up, We Love Glenda So Much. Everymans LIB (2014) Rayuela (1963). Ed. Debolsillo, 2016 The pursuer (1959) (short story). In: End of the Game and Other Stories. PANTHEON PBK (1992) El perseguidor y otros relatos. Ed Bruguera 1980	Julio Cortázar (1914-1984) (Argentina)
How the tailor Bieito returned to hell (short story). Not translated De cómo el sastre Bieito volvió al infierno (1973), En: Antología de literatura fantástica. Ed. Valdemar, 1992.	Anxel Fole (1902-1986) (Spain)

■ Table 5 (cont.)

SPANISH AND LATIN AMERICANS AUTHORS AND THEIR WORKS (IN CHRONOLOGICAL ORDER) ABOUT THE INFLUENZA	
Title of book in English (original title) and Spanish (year)	Author (dates) (country)
Acropolis. Aims International Books Corporation, 1984 Acrópolis. Ed. Seix Barral, 1984	Rosa Chacel (1898-1994) (Spain)
The club of angels (1998) (O clube dos anjos)	Luis Fernando Verissimo (1936-)
El club de los ángeles. Trad. Juan Carlos Gentile Vitale. Ed. Plaza y Janés 2001	(Brazil)
The luminous novel. Not translated	Mario Levrero (1940-2004)
La novela luminosa. Ed Mondadori, 2005	(Uruguay)
The year of the flu and other stories. Not translated	Elías Rubio Marcos
El año de la gripe y otros relatos burgaleses Ed. Burgos : Rubio Marcos, 2005	(Spain)
This America of ours. Correspondence 1926-1956. Not translated	Gabriela Mistral (1889-1957) and Victoria Ocampo
Esta América nuestra. Correspondencia 1926-1956. Ed. El Cuenca de Plata 2007	(1890-1979) (Chile and Argentina)
Mortal flu. Not translated	Pablo Caralps
Gripe mortal. E. Martínez Roca 2009	(Spain)
Pandemic alert?. Not translated	José Manuel Echevarría
¿Alerta pandémica?. Ed. Meteora, 2011	(Spain)
The spring epidemia. Not translated	Empar Fernández
La epidemia de la primavera. Ed Suma, 2018	(Spain)
Mariela. Not translated	Yolanda Guerrero
Mariela. Ed B 2019	(Spain)

And if regarding the origin / of evil lies so much today, / ¡The remedies that rule are/ its healing a charm! / People full of fear / say every nonsense .../ Ones, there is nothing better / than cod with tomato./ Others take the job, / for the good of his skin, /sleeping upside down / inside an old closet, / and others heal with gum, / and others with hard asphalt./ Me, taking the evil as a joke / prevent it with bromide./ even when to sweat / I know there is nothing better / what to do verses incessantly / when you don't have humor ...”

d) Luis Buñuel, the Spanish film director, in his autobiography *My Last Sigh*: “During the influenza epidemic of 1919, the terrible Spanish flu that killed so many people, we were practically alone in the Residence (Buñuel and Moreno Villa)”

e) Ramón López-Montenegro and Ramón Peña, *El trancazo* (*The flu*) (1918) and *Pulmonía doble* (*Double pneumonia*) (1919). These are two comic plays in three and one act, both respectively, about the Spanish flu.

f) Elena Fortún, *Letter of Encarna* (*Elena Fortún*) to Mercedes, since Santander, 8th November 1918). María de la Encarnación Gertrudis Jacoba Aragoneses y de Urquijo was a Spanish author of children's literature who wrote under the pen name Elena Fortún. She became famous for Celia

(“What Celia Says”), the first in the series of children's novels which were a collection of short stories first published in magazines in 1929. The series were both popular and successful during the time of their publications and are today considered classics of Spanish literature. “The flu epidemic continues, and at times we are very overwhelmed and very sad and wanting to escape.

Nothing serious happens to me, but what has been happening to me since the flu in. More and more cough, pain in the side, more and fatigue, and, in the last week, fever and a hundred beats a minute”.

“With such a terrible pain in her side, she took her to a radiologist, and to have blood tests done, and then she was seen by Dr. Ribas Sobera, with whom Asita worked, who said she had pleurisy in her right lung”.

g) Gregorio Torres Nebrera, *The spaces of memory* (*The literary work of María Teresa León*). Evocation by Rosa Chacel of the figure of María Teresa León in Berlin in 1932. Rafael is Rafael Alberti, the Spanish poet: “That girl who had developed so much beauty was there, in a hotel room, dressed elementally, typing hours and hours, during a long Rafael's flu”

h) Julio Cortázar, *Letter to Damián Bayón* (March 18th

■ Table 6

THE SPANISH FLU TOPICS IN THE BOOKS AND AUTHORS	
Spanish flu topics in the books	Authors
Origin of the name	Rosa Chacel, Luis Fernando Verissimo
Superstitions	William K. Maxwell, Sforim, Juan Pérez Zuñiga
Epidemiology:	
-Crowds	John O'Hara
-Contagion (health professionals)	William Carlos Williams
-Quarantine	Thomas Mullen, Josep Plá, Miguel Delibes
Symptoms:	
-In general	Several authors: William K. Maxwell, Graig Dilouie, Thomas Mullen, Myla Goldberg, Ernest Hemingway, Géza Csáth, Orhan Pamuk, Josep Plá, Elena Fortún, Rosa Chacel, Pio Baroja
-Duration of the symptoms	Mario Levrero
-Mental effects	Virginia Wolff, Agatha Christie
Mortality	Mainly: Anthony Burgess, Ellen Bryant Voight, Stefan Zweig, Josep Plá, Carlos Arniches
Recovery	K. Anne Porter
Desinfection	Ramón Gómez de la Serna
Face mask	Mariano de Cavia
Hand washing	Géza Csáth

1956 in Paris): “And that's what we were doing when Glop gives up on not accepting the cold snap (16 below zero) and catches a fierce flu, complicated by liver.”

i) Francisco Ayala García-Duarte, in his *Epistolary*, there are 10 letters dated between 1957 and 1968 in which he writes that he has caught the flu (years 1957, 1961, 1964, 1965, 1966 and 1968)

j) Rosa Chacel, her novel *Acropolis* is a look at women and their stage of growth in a generation that lived the Spanish flu. It covers the period of the Spanish flu until the proclamation of the Second Republic (“Segunda República”) in 1931: “It was not enough with the date, from 15 to 18, the years of the Spanish flu that we have just gone through ... Why Spanish? Who knows, but there's no smoke without fire... And after all, whether there's no smoke without fire or not, whether or not it is Spanish, the flu, ours, the one that we live here, in our neighborhood, in our house, was Spanish, authentic. The bug has a foreign name ...”

“... in this Madrid life, with all its bugs. Because the one with the flu is striking and he is listened to, he is treated, but Madrid life survives by force of ignorance ...”

“Timothy told me something that had happened in the months of his flu... He had suffered one flu after another during the previous year and the persistence of the feverish

state and other symptoms had made him fear that it was a serious lung condition”.

In the second group (“registered rather than experienced”)

a) Federico García Lorca went to the Student Residence in Madrid in November 1919 but occupies it in February 1920, the delay could be due to the flu in 1919.

(https://www.granadahoy.com/ocio/Ano-Lorca-Federico-Residencia-Estudiantes-Madrid_0_1358564641.html).

b) Pio Baroja, with several books: *Weed*, *The resources of cunning*, *The nights of the Buen Retiro*, *The priest of Monleón*, *Follies of carnival*, and *Family, childhood and youth*. In *The Search*: “Manuel, the protagonist, I do not know if because of the flu or what he fell ill with and “he was close to two weeks with a very high fever, delusional.”

The Cape of Storms: Juanito Vélez, a character linked to the plots and union agitations in Catalonia, he died, far from Barcelona in Tuy: “There he caught the flu and soon after, tuberculosis manifested itself with very high fevers and vomiting of blood and in a short time died.”

c) Mariano de Cavia y Lac, Spanish journalist that in your journalistic column entitled: *Against the epidemics: People beg for the veil!*, in *El Sol* (“The Sun”) newspaper (October 24, 1918), he echoes the song of the “zarzuela” of Barbieri “Gloria and Wig” (*Gloria y Peluca*): “Do not cover your face/ pretty

girl,/ that whoever hides the good/ God takes it away" and he changed it: "If you cover your face,/ pretty girl/ you will get rid of flu/ and scarlet fever". He was following Professor Marchoux's advice, in the Pasteur Institute, advocated wearing mask for the flu [19].

d) Ramón Gómez de la Serna, a Spanish writer, dramatist and avant-garde agitator especially known for "Greguerías" (a short form of poetry that roughly corresponds to the one-liner in comedy): "The flu is the fog of death, that little smoke that she also throws on the harsh days of winter"

"Some guys on the fringes of life, who seem to go down unspecified sidewalks, are household disinfectants. They pass with their big appliances on their backs talking about indifferent things to avoid the contagion of the epidemics that have just died out. They know that their path had to be secret so as not to startle the life of the street, which is neglected of all the problems and on which they are cast as shadows. They leave a wake of fallen microbes, but they are looked upon with benevolence, since they are heroic soldiers who enter the house where there has been a flu, and close the doors of the fateful rooms, and are inexorable executioners of evil in the hermetic rooms".

In *The bullfighter Caracho* (1926): "The sensible man maintained that if those misfortunes were exorbitant it is because he had been focused with a telescope in agony and that of a tuberculosis patient or that of a carpentry officer who dies of the flu calling his mother cannot be focused in this way".

In *Social gatherings in the café* (Pombo): "Salvador sometimes has long absences. Pombo misses the little Satan who sniffs everything and is distracted from ideas by sniffing things, sensual and dissolute. It is that Salvador always has the flu, his grip is temporary, so Bartolozzi and Flu are also savior".

"Crespo: "If I had not said that the great Savior is Lucifer, I would say that this man is Mephistopheles, although of course Salvador is that in a very serious way with a black coat".

He also alludes to his chronic flu in one of his characteristic humorous notes (in *The Pombo's holy crypt*).

e) Carlos Arniches, a Spanish playwright. His prolific work, drawing on the traditions of the "género chico", the zarzuela and the grotesque, came to dominate the Spanish comic theatre in the early twentieth century. In this theater comedy, *The caciques*, released in Madrid on February 13, 1920, he alludes to the high mortality in old people: "MORRONES. – There is no abundance of the elderly with the flu; but "ou"

will see later the best I have found. And the boys are picking them up for me, my wife. I have told him to pay them six pesetas for half a dozen ... I was already nine when I came; but the nine of both sexes, as "ou" wanted".

f) Ramón Pérez de Ayala, in his *Epistolary* between Pérez de Ayala and Jesús Pabón: "I did not answer immediately because a whole month I suffered from the flu, which had me perfectly asthenic. The South American flus are very impudent. I have not recovered yet, but I am improving".

g) Miguel Delibes, *My idolized son Sisi*. The novel recreates the situation experienced in a province by the flu and the quarantine. The novel in three parts (the first one between 1917-1920):

"-Oh, the flu! Said Cecilio Rubes. Since when is the flu a major disease?

Valentine said:

- This one right now is not a joke, Mr. Rubes. It is a flu that does not go away with two days of bed and an aspirin seal".

h) Julio Cortázar, *Hopscotch* (*Rayuela*): "I will explode from an intestinal occlusion, the Asian flu, or a Peugeot 403..."

Julio Cortázar, *The pursuer* (*El perseguidor*) (short story): "You had the flu. Your better now?

It wasn't flu. The doc arrived and right away began telling me he liked jazz..."

i) Anxel Fole, *How the tailor Bieito returned to hell* (short story):

"the gravedigger, seeing that the tailor apparently dead of the flu, rises, exhorts him to return to hell:

-Don't you see that I'm alive?

-Alive? You died of the flu complicated with pneumonia. Or do you want to know more than the doctor who issued you the death certificate?"

j) Luis Fernando Verissimo, *The club of angels*. Spanish flu or bird flu:

"When someone asked about Samuel's parents, he replied that they had died of the Spanish flu. And if someone remembered that it was impossible, since the Spanish flu epidemic had reached Brazil at the beginning of the century, he said: "Then it was Asian flu, I did not ask for documentation".

k) Mario Levrero, *The luminous novel*: "Many years ago, a relative dentist expressed in my presence the theory of that flu lasting three, seven or twenty-one days. The numbers are too cabalistic to trust them too much".

I) Elías Rubio Marcos, *The year of the flu and other stories*. Book about the causes that motivated the depopulation in Ochate (Treviño County, Spain), during the Spanish Flu.

m) Gabriela Mistral and Victoria Ocampo, *This America of ours. Correspondence 1926-1956*. Correspondence, where the flu contagion is counted

"I stay in bed with my second flu.."

n) Others:

- Pablo Caralps, *Mortal flu*. Use of a Spanish influenza strain, its spread and create one vaccine and two influenza drugs

-José Manuel Echevarria, *Pandemic alert?*. A new flu virus in a pandemic in Guatemala.

- Empar Fernández, *The spring epidemia*. The Spanish flu

- Yolanda Guerrero, *Mariela*. Spanish nurse in Paris, in 1918

Finally, in table 6 we correlate the Spanish flu topics and the authors.

In conclusion, we show the different literary works about the Spanish flu and an extensive list of them. All these works show the wrong idea of Virginia Woolf complained about the lack of novels devoted to influenza and we have contextualized the works with the historical situation of the Spanish flu.

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