

# Covid-19

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El COVID-19 estaba concentrado en China en enero de 2020 y solo existía un goteo de casos en otros países a través de viajes en avión. A final de mes había 10.000 casos en China y 129 fuera. Pero en febrero se activaron varios brotes en Corea del Sur, Italia, Alemania o España. Ahora hay casos confirmados en la mayor parte de Centroamérica, Suramérica, Norteamérica, Asia, Australia y Europa, que crecen de forma exponencial. China es el país donde apareció el virus y donde se produjeron inicialmente más infecciones. Pero otros países tienen ya un número significativo de casos confirmados: Corea del Sur, Italia, Irán, Japón, Francia, Alemania y España superaban los 1000 fallecidos a finales de marzo y actualmente ya superan a China. El ritmo en cada país es diferente. Japón, Hong Kong, Singapur han visto crecer las infecciones paulatinamente desde enero. En otros países como España, Francia o Alemania, los casos se dispararon muy rápido siguiendo la estela de Italia, que dio la voz de alarma en Europa. En la evolución de esta pandemia se están generando cifras muy alejadas de la realidad y el contagio es mucho más grande de lo que indican las cifras oficiales. La razón es que no existen mecanismos adecuados, baratos y fiables para determinar si un paciente tiene coronavirus y esto hace que estemos midiendo dos fenómenos al mismo tiempo: el aumento real de infectados en cada país y la capacidad de detectarlos por parte de sus autoridades.

La evolución en Europa es un buen ejemplo de esto. Tras la explosión de casos en Italia se ve un aumento en muchos países, pero la razón no es solo que haya más infecciones, sino un pico de detecciones porque los países reforzaron sus protocolos: es probable que este cambio haya tenido un gran efecto en el número de casos. La transmisión de la enfermedad puede ser alta, pero no es plausible que sea tan alta como para generar los picos que hemos visto en muchos países. El Covid-19 se une a las células humanas usando la proteína ACE2, situada en la superficie exterior de las mismas. El virus encaja su proteína S en la ACE2 como una llave en una puerta. Una vez dentro utiliza la maquinaria celular para producir entre 10.000 y 100.000 copias de sí mismo que se lanzan a infectar nuevas células. Una de las características de la Covid-19 es su alto número reproductivo, lo que ha facilitado su expansión por el mundo. El coronavirus tiene un RD (índice de contagio) de 2,68 según la revista científica 'Lancet', es decir, cada persona contagiada llega a contagiar a 2,68 personas, una cifra relativamente alta. Además, los síntomas, como la tos y la fiebre, aparecen cuando la persona lleva ya varios días infectada y transmitiendo el virus. Esto, junto con que hay un alto porcentaje de enfermos que no presentan síntomas es la mayor causa del exponencial aumento de contagios entre la población sana.

La Organización Mundial de la Salud (OMS) nos repite sistemáticamente que uno de los mecanismos para frenar la pandemia es tener datos fiables sobre el número de infectados, a la vez que identificar a aquellos que lo están. Existen varios tipos de test para evaluar la existencia del COVID-19 en un humano. Los test de PCR (reacción en cadena de la polimerasa) que se están utilizando para identificar la infección por coronavirus se emplean desde los años 80, son bastante fiables y tardan unas horas en ofrecer resultados. Otro tipo de test más rápidos, los de anticuerpos, resultan útiles para saber si una persona infectada ha superado ya la enfermedad. El mayor problema de estos test está en que no garantizan el 100% la identificación del virus, y la dificultad para su adquisición, así como el precio de los mismos. Todos los países están teniendo problemas para adquirirlos en la cantidad suficiente para que sean efectivos.

Hasta que tengamos una vacuna y/o podamos hacer test de forma masiva parece necesario establecer mecanismos que faciliten mantener la distancia social, el triaje y la predicción de la evolución. El desarrollo de pasaportes biológicos también podría ser una alternativa a implantar. En el marco de este seminario se presentarán las distintas alternativas existentes [1-205].

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