

presumptively targets the cytokine storm phase of the disease by inhibiting the IL-6 pathway (2). However, IL-6 has a multifaceted role in venous thromboembolism, and Zhang et al. has reported that upregulation of IL-6 as the result of aberrant downregulation of miR-338-5p may lead to venous thromboembolism (3).

Conversely, using a rat model, Nosaka et al. demonstrated the importance of iIL-6 in resolving thrombi through macrophage recruitment and proteolytic enzymes induction (4). The absence of IL-6, in fact, leads to the thrombus growing (4). Moreover, tocilizumab has been reported to decrease factor XIII, chimerin, and plasminogen activator inhibitor levels (5). Factor XIII is involved in fibrin stabilization; blocking this factor may lead to fibrin clot instability, causing microthrombi to dislodge, increasing the likelihood of thrombophilia.

The association of tocilizumab with thrombosis is not clearly understood. However, the potential for adverse effects that we describe may warrant a short period of therapeutic anticoagulation before and after administering tocilizumab. The hypercoagulable state reported in the findings by Griffin et al. may represent a side effect of tocilizumab rather than being a condition secondary to COVID-19, or it could result from a combination of both.

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Work Environment Surrounding COVID-19 Outbreak in Call Center, South Korea

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To the Editor: I read with interest the recent synopsis by Park et al. (1) about a coronavirus disease outbreak in a call center, in which I was involved as a field epidemiologist. I would like to share my perspective as an occupational physician.

The work environment of the call center was an important reason for the high attack rate on the 11th floor. The width of the desks was 1.2 m, and most employees had worked without face masks despite the high risk for severe acute respiratory syndrome coronavirus 2 transmission associated with having persons continuously engaged in phone calls through headsets in an enclosed space. Call centers are known for their poor working conditions, the lack of power among employees, and high demands of the job (<https://www.diva-portal.org/smash/get/diva2:20713/fulltext01.pdf>).

In addition, presenteeism (i.e., attending work while ill) also affected the high attack rate (2,3). At least 10 employees continued to work despite having symptoms. In South Korea, sick leave and other benefits are not available for most workers (4). Given the lack of sick leave and concerns about disincentives for absences, employees could not have left the workplace easily. Without sick leave, workers are reluctant to apply for workers' compensation, the only alternative, and employers avoid registering workplace accidents for fear of penalties. These factors explain why the occupational accident rate does not reflect reality. A paradoxical discrepancy has been observed between South Korea and the average European Union country in both lower occupational accident rates (484 vs. 1,558/100,000 workers) and higher fatal accident rates (10.54 vs. 1.65/100,000 workers) (5).

The outbreak in the call center reflects the work environment and compensation system in South Korea. To prevent transmission of severe acute respiratory syndrome coronavirus 2 in the workplace, South Korea needs not only improvements in physical working conditions (e.g., use of physical distancing and telework) but also introduction of sick leave and a more accessible workers' compensation system.

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Stemming the Rising Tide of Human-Biting Ticks and Tickborne Diseases, United States

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To the Editor: We agree with Eisen (1) that local/county vector control agencies (VCAs) are well-positioned to address tickborne disease prevention.

However, addressing tickborne diseases using VCAs requires substantial long-term support from local administrators and taxpayers and would necessitate changing the way vector control programs are currently funded to a more proactive approach.

Sustainable funding is critical because ticks rebound quickly when management efforts cease (2). Many VCA budgets are eroded in the years between mosquito-borne disease outbreaks, leaving them ill-prepared for the next outbreak (3). Consequently, tickborne disease programs could experience major setbacks if their resources are redirected during a mosquito-borne disease outbreak.

Eisen acknowledges (1) that known barriers to implementation of community-based tick control include a lack of optimized best practices for tick suppression that link reductions in tick populations to measurable reductions in human disease, as well as the lack of real-world cost estimates for their implementation. Tickborne disease programs without proper budgets and realistic expectations that purport to reduce incidence but fail to do so (or fail to do so quickly) run the risk of undermining public trust and willingness to sustain funding.

Last, we caution that managing ticks in residential situations (as opposed to high-risk public open spaces and trails) is fraught with technical and public relations challenges, legal issues, and likely insurmountable funding demands (4,5). The complex array of environmental and social factors contributing to the increase in tickborne disease cases (e.g., forest management practices, climate change, land use, and an aging population) is frankly beyond the scope of any individual VCA to address without higher-level (state and federal) coordination.

A proactive approach with higher-level coordination will help manage tickborne disease. To give VCAs the best chance to combat tickborne disease, they must be adequately and sustainably funded to manage mosquitoes and ticks, even during years of fiscal challenge.

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