Human granulocytic ehrlichiosis (HGE) was recently recognized in patients from Wisconsin and Minnesota [1]. The illness is probably transmitted through the bite of infected ticks, since >90% of infected patients have described previous exposure to ticks, and the agent of HGE has been detected in *Ixodes scapularis* (*dammini*) ticks [1, 2]. We describe other possible routes of transmission, as we have recently treated three patients from the upper Midwest who may have contracted HGE by exposure to the blood of infected deer.

To determine if deer are potential reservoirs for the agent of HGE, we collected samples from the small pools of blood remaining in the abdominal cavities of 42 eviscerated deer carcasses in November 1994. Ehrlichial DNA was detected by PCR in 27 (64%) of the 42 blood samples tested by the procedure described by Pancholi et al. [2] or Chen et al. [3].

An acute febrile illness developed in three male patients from the upper Midwest in December 1994, and the diagnosis of HGE was confirmed by either seroconversion or high titers of antibody to *Ehrlichia equi* [1] and/or by detection of *Ehrlichia phagocytophila*–group specific DNA in blood samples [3]. None of the patients could remember preceding exposure to ticks or an actual tick bite, and none of the patients worked outdoors. Each of the men had butchered >250 deer carcasses during the two preceding weekends and had not worn gloves, masks, or protective gear for their eyes. Each patient had sustained numerous cuts on his fingers and hands from knives or sharp bony fragments, and one of the patients had stabbed himself in the thigh while working. All three men had used an electric saw without an attached vapor suction device, and blood frequently splashed on their clothing during their work.

Patients 1 and 2 became ill 10 days and 11 days, respectively, after the first exposure to the dead animals, and a presumptive diagnosis of HGE was made within 5 days of the onset of fever. Both patients were treated with oral doxycycline and recovered quickly. Patient 3 never received treatment with doxycycline, and his diagnosis was confirmed retrospectively 45 days after the onset of acute symptoms at which time his illness had resolved spontaneously.

Although most patients with HGE report exposure to ticks or a tick bite before the onset of their illnesses [1, 2], only one third of patients with Lyme borreliosis recall a preceding tick bite [4]. Thus, it is possible that our three patients may unknowingly have been bitten by ticks as a consequence of handling deer carcasses. However, since their illnesses occurred in December, adult ticks would most likely be responsible for any bites, and the size of an adult tick makes it easier to see than a tick in the larval or nymphal stage. Furthermore, ticks feed only once during each developmental stage and would likely not "change hosts" for the purpose of feeding unless they had not yet taken a blood meal.

All three patients had extensive exposure to deer blood presumed to be infected with the agent of HGE, which possibly could have resulted in entry of the agent of HGE through the numerous cuts on their hands. On the other hand, inhaling infectious particles aerosolized by the electric saws or splashing infectious blood directly into the conjunctivae or mouth could perhaps account for transmission of the infectious agent. Ingestion of cooked deer meat should not present any danger for developing acute HGE. However, individuals who handle fresh raw deer meat are at possible risk for contracting HGE, and butchers should be aware of the possible occupational hazard associated with butchering fresh deer carcasses without the use of gloves, mask, and goggles to minimize exposure of the skin and mucous membranes to infectious blood.