

## MONKEYPOX: Notes about the Disease

Were it not for an outbreak in 2003 involving several states, imported African rodents, and captive prairie dogs, North Carolinians would have little reason to be particularly interested in or concerned about monkeypox.

This smallpox-like zoonotic disease was first noted in laboratory cynomolgus monkeys in 1958 and, when detected in humans in Zaire in 1970, was first mistakenly thought to be a reintroduction of smallpox to that country. The disease in humans does resemble mild smallpox, except there is more lymphadenopathy with monkeypox. The causative orthopox virus is maintained in one or more African rodent populations and occasionally spills over into primates and humans. Smallpox vaccination offers at least partial protection against infection and severe morbidity.

In May 2003, cases of a febrile rash illness that were fairly rapidly confirmed as monkeypox began to occur in several Midwestern states. Investigation eventually revealed that all of the 35 laboratory-confirmed case patients had had contact with pet prairie dogs that, in turn, were traced back to an Illinois animal distributor. The prairie dogs at this facility had exposure to imported African rodents brought into the country by a Texas animal distributor; several of these rodents were documented to be infected with monkeypox virus. A total of 71 human cases meeting a CDC case definition were eventually reported. Although the case-fatality ratio in Africa has been reported as high as 10% in earlier years, there were no fatal cases in this US outbreak.<sup>1</sup>

In the wake of this outbreak, the CDC and Food and Drug Administration jointly issued an order banning the importation of all African rodents into the US and the sale or release of prairie dogs, a mandate that will likely become a permanent federal rule. Of perhaps more than parenthetical interest, however, is the fact that a breeding colony of Gambian rats (one of the African rodent species capable of carrying the monkeypox virus) has established itself on one of the Florida Key islands.

Should we, then, in North Carolina, be concerned about the risk of monkeypox? If the federal rules are enforced, there would seem to be little risk of the disease showing up in the Tar Heel State. Even though bioterrorists might have at one time considered this virus a satisfactory BT agent, the success with which this country was able to deal with the 2003 outbreak and the low risk of person-to-person spread of monkeypox have probably lowered its desirability in this regard. Public health workers should be aware of it, but there are undoubtedly diseases of greater public health importance deserving more of our attention at present.

1. Centers for Disease Control and Prevention. [Update: Multistate Outbreak of Monkeypox—Illinois, Indiana, Kansas, Missouri, Ohio, and Wisconsin, 2003]. *MMWR* 2003;52:[642-6], [www.cdc.gov/mmwr/preview/mmwrhtml/mm5227a5.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5227a5.htm).