

# Protection of rabbits against experimental pasteurellosis by vaccination with a potassium thiocyanate extract of *Pasteurella multocida*.

[Ringler DH](#), [Peter GK](#), [Chrisp CE](#), [Keren DF](#).

## Abstract

Antigens were extracted from a virulent isolate of *Pasteurella multocida* (serotype 3, 12, 15:D) with potassium thiocyanate, and a vaccine was prepared. *Pasteurella*-free rabbits were vaccinated intranasally and intraconjunctivally twice with a 2-week interval and challenged intranasally with the homologous *P. multocida* serotype 2 weeks after the second vaccination. The vaccinated rabbits produced serum immunoglobulin G and nasal mucosal immunoglobulin A against *P. multocida*. The vaccine protected the challenged rabbits against clinical disease and death; however, otitis media was not prevented, and microscopic inflammatory lesions were occasionally noted in the lungs and nasal turbinates. In contrast, nonvaccinated, challenged rabbits became febrile, dyspnic, depressed, and anorectic, and five of six died within 4 days of challenge with severe lesions including pneumonia, pleuritis, otitis media, and bacteremia. The vaccine prevented death and colonization of challenge organisms in the blood and lung, but did not prevent colonization of the middle ear. The vaccine alone did not cause clinical disease or gross lesions, but did produce microscopic pulmonary inflammatory lesions.

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