The difference in our results may be accounted for by the facts (1) that our method of protein extraction was somewhat different; (2) that we used horse dander as the sensitizing agent, and, (3) that we did not rely on the Dale method as a final criterion for anaphylaxis.

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Nasal sensitization, nasal anaphylactic shock and respiratory symptoms simulating bronchial asthma, in the guinea pig.*

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Several years ago, one of us,[1] in a clinical study of asthma in children, felt that there was strong evidence for the idea that asthma may be an "acquired" disease, and in some cases the result of sensitization through the nasal route.

Insofar as it is impossible to study the mechanism of this condition in the human being, we have applied our hypotheses to direct investigation in the guinea pig. This animal was chosen for our experiments because of the ease with which respiratory anaphylactic phenomena can be elicited.

We have found certain corroborative evidence for our results in the works of Busson and Ogata,[2] Friedberger,[3] Peragnani,[4] Sewall and Powell,[5] and Giani.[6]

Our results may be divided into three groups:

1. Guinea pigs were sensitized by exposing them to the dust of dried horse dander; subsequent intravenous injection of a protein extract of this same horse dander caused death.

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1 Ratner, B., *Am. J. Dis. Child.*, 1922, xxiv, 346.

2 Busson and Ogata, *Wien. Klin. Wchnschr.*, 1924, xxxvii, 820.

3 Friedberger, E., and Kamio, *Ztschr. f. Immunitat.*, 1923, xxxvii, 379.

4 Petragnani, *G. Policlinico, (Sez. Med.)*, 1922, xxix, 446.

5 Sewall, H., and Powell, C., *Arch. Int. Med.*, 1915, xvi, 4, 605.

6 Giani, E., *Giornali di Clinica Med.*, 1923, iv, 13.

2. Animals sensitized by giving them intraperitoneal injections of horse dander extract have subsequently shown grave anaphylactic phenomena and, also acute anaphylactic death when exposed to horse dander dust.

3. Animals sensitized by exposing them to horse dander subsequently exhibited marked respiratory anaphylactic phenomena when subjected to the same horse dander dust.

This latter group of animals, which at no time had received parenteral injections of the protein extract of horse dander, have presented symptoms that are comparable to the bronchial asthma of human beings. These guinea pigs have come in contact with the horse dander dust in the same manner that a human being might, for at no time was the horse dander forcibly injected into their nares.

Several animals that had previously been sensitized by an intraperitoneal injection of horse dander, died within two to four minutes after having been put in the cage containing circulating horse dander dust. There was no gross evidence of dust found in the larynx, trachea or lungs in this group of animals. This remarkable rapidity with which the sensitized animals died after coming in contact with the circulating horse dander, is directly comparable to the time elapsing after an intravenous shock injection.

We were unable to sensitize animals by feeding them dry horse dander in gelatine capsules.

We believe that the above experiments lend evidence for the probable mechanism of bronchial asthma in the human being, and further demonstrate that the nasal route may be an avenue for the production of sensitization, anaphylactic phenomena and even anaphylactic death.