

Short Communication

A method of intraduodenal administration of fluids to chickens

Eine Methode der intraduodenalen Applikation von Flüssigkeiten bei Küken

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With 3 figures

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Summary

A simple and safe method of intraduodenal administration of fluid materials to the chicken is described.

In the experimental veterinary medicine the intraduodenal application of fluid substances such as infectious materials, drugs etc. can become necessary to prevent their degradation by the gastric juice.

In the course of series of experiments with *Clostridium perfringens* to chickens the following method for an intraduodenal administration of broth culture has been developed:

A rigid bulbous cannula was inserted into the duodenum under palpatoric control via mouth – oesophagus – crop – proventriculus and gizzard. The bird had not been subjected to sedation before, because the manipulation does not cause heavy stress and the animal did not show defence reactions. The specific anatomy should be taken into consideration so as to avoid injury.

The bird is fixed on its back by an assistant.

The head of the bird is directed towards the experimentalist who stretches the throat of the bird by fixing its head. Then the moistened cannula is placed into the mouth and pushed under gentle rotation along the palate into the esophagus. The first part of the latter lies dorsal to the trachea, but soon it passes on the right side of the trachea. The cannula now reaches the crop, which is normally located at the entrance to the thorax and extends to the clavícula.

The outlet of the crop is on the dorsal side. If necessary one can reach it by holding the crop firmly between the middle finger and thumb and make slight rotating movements with the cannula towards the proventriculus. Between the proventriculus and the gizzard there is a slight resistance, which one has to overcome (the isthmus).

The throat is now released and the gizzard held firmly in place. It is located as a hard lump and lies slightly to the left between processus xiphoideus and the cloaca.

The cannula is now passed through a short oblique bend in the direction of the pylorus into the duodenum. The pylorus is situated approximately 1–1.5 cm to the right of the entrance of the gizzard.

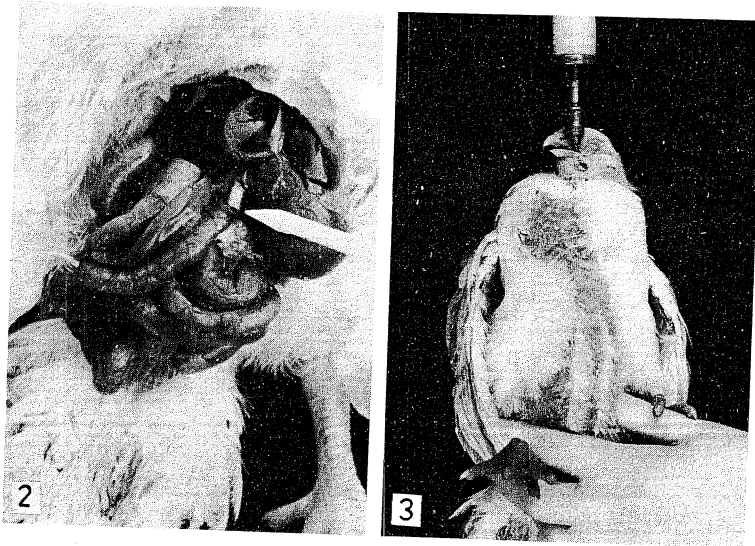
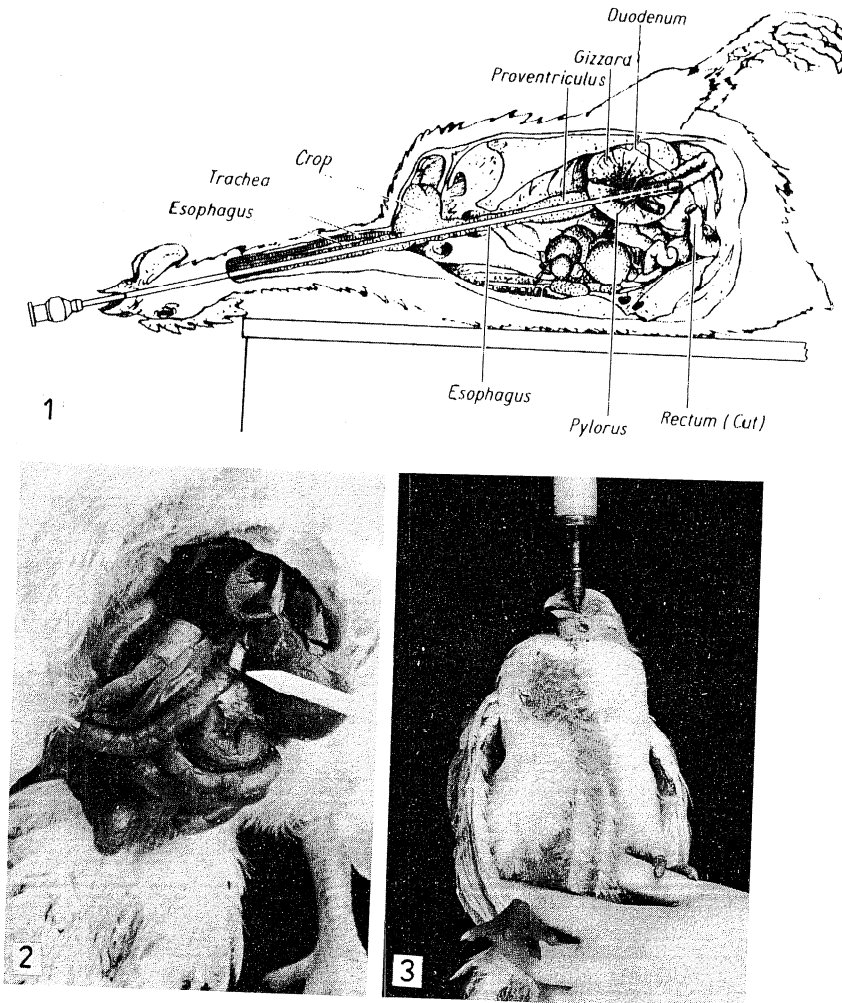


Fig. 1-3.

The method is safe, simple and new (Fig. 1). There is no publication with guidelines on a similar method. It can already be applied to day-old chickens. No complications have been observed during the enteral inoculation of 500 chickens with 3 intraduodenal applications daily for 6 days. Volumes up to 4.0 ml pro dosi were given. Fig. 2 shows the location of the cannula in a 2 week-old chicken and Fig. 3 the position of the cannula in situ.

With this method one can treat approximately one bird every minute.

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