

Current situation of isoflurane anaesthesia from the farmers' perspective

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Background and Objectives

Castration of piglets without anaesthesia has been banned in Germany since January 2021. Farmers are allowed to castrate male piglets without an attending veterinarian up to the seventh day post natum with isoflurane. Beforehand a training course with a theoretical and practical test is obligatory as well as requalification after three years. The aim of this poster was to record the current situation of piglet castration in Lower Saxony (Germany) and to identify potential animal welfare or user problems. There are five authorized devices in Germany, the distribution varies from region to region.

distribution of anaesthesia machines

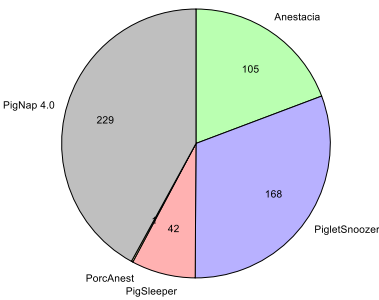


Fig. 1: distribution of anaesthesia machines in this study (total numbers)

Results

The distribution of the five approved anaesthesia machines showed a preference in Lower Saxony for PigNap 4.0 (BEG Schulze Bremer GmbH, 42 %, n=229), PigletSnoozer (GFS TopAnimal Service GmbH, 31 %, n=168) and Anestacia (GDO GmbH, 19 %, n=105). PigSleeper (MS Schippers, 8 %, n=42) and PorcAnest (Promatec Automation AG, n=1) were less represented. 95 % had already made use of customer services. Of these, 6 % were dissatisfied, citing reasons ranging from high costs, short shelf life and hygiene problems (no porc-free technician) to poor service and long waiting times.

For 11 farmers (2 %), the user himself experienced problems in form of headaches, isoflurane smell and fatigue. 23 participants (4 %) stated that there were problems with anaesthesia. 74 % of these 4 % observed insufficient deep anaesthesia and 13 % observed piglets that were too deeply anaesthetized or died, while the remaining 13 % had a combination of both problems. An increased tendency to bleed was found in 21 % of the farms. This is why the use of an emasculator was introduced at 67 % and a combi castration forceps was introduced in 27 % of these farms.

Further measures relating to castration were reported by 86 % of the farms. Of these farms 78 % drew in ear tags, 74 % administered iron supplements, 43 % vaccinated the piglets and 39 % administered an antibiotic. The timing of these measures was 24 % after castration and 71 % before castration, without influencing the anaesthesia from the farmers view. The other 5 % used some measures before and other after castration.

Pic. 1: anaesthesia machine in use with four piglets



Material and Methods

A questionnaire with decision questions and free text for explanations was used. All farmers received this questionnaire during the requalification with Swine Health Service in Lower Saxony (since July 2023). Participation was voluntary. Until March 2024 547 questionnaires were completed and evaluated, farmers from the same farm only completed one questionnaire. The evaluation was carried out using Excel 2019 and NCCS 2023.

Pic. 2: emasculator, length about 15 cm



Pic. 3: combi castration forceps, length about 20 cm, one handle with blade no. 24



Discussion and Conclusion

After three years of isoflurane anaesthesia, this first evaluation shows good user satisfaction and is a success from an animal welfare perspective in Lower Saxony (Germany). Correct use must be kept in mind to ensure safe anaesthesia for piglets and opportunities must be created to reduce the increased tendency to bleed. The health risk to the user should not be forgotten and the long-term effects of regular use of the devices should be investigated. Especially as the devices have not yet been tested for durability during prolonged use in an animal housing environment.