F Summary

Research on the frequency, the causes and the treatment of dystocia in bitches- a statistical evaluation of patients data

The goal of this thesis is to examine the predisposing factors, the development, the causes and the treatment of dystocia in bitches. The investigation is based on 698 cases, treated in the veterinary faculty for obstetrics and reproductional disorders of the Humboldt Universität zu Berlin and the veterinary hospital for reproduction at the Freie Universität Berlin.

Of the patients treated during labour, 98.3% were cured. 0.3% of the non–surgically treated bitches, 3.5% of the caesarian section with ovariohysterectomy and caesarian section with hysterotomy bitches, did not survive the surgery. The most common cause of death was liverdamage. The percentage of whelps born alive following non–surgical treatment (80.5%) is much higher than the percentage of whelps born alive following surgical treatment. Within the range of non-surgical treatment, combining contraktion medication with an intrapartum spasmolytic (92.2%) of whelps per litter. An oxytocin treatment combined with manual obstetrical aid achieved the worst survival rate of whelps per litter, with 65,4%.
If the labour requires manual support, it seems to be advisable to give intrapartum spasmolytics which have positive influence on complications in labour.
76.9% of the whelps survived a caesarian section with hysterotomy. The prognosis for a survival of a caesarian section with ovariohysterectomy is at 64.0% rather poor. In general the medical preparturitional treatment did not have a negative influence on the life expectancy of the whelps.

With a percentage of 41.0%, the miniature breeds are over represented in comparsion to other breeds. The explanation for this is that the possibility of dystocia is much higher in small breeds.

The average age of the obstetrically treated bitches was 4.4 years. The average age of patients in relation to the causes of dystocia are higher in the following: weak contractions (maternal) 4.5 years and single whelps (foetal) 5.2 years.
It was noticeable that the higher the number of birth per bitch, the lower the chance of dystocia. 41.4% of the patients needing obstetrical treatment were bearing their first litter.

63.1 days were established to be the average of gestation period. Singel whelps litters were carried longer (64.0 days) than litters with 2 to 6 whelps (62.3% days) and litters with more than 6 whelps (62.7 days).

The length of labour before admission into the clinic was an average of 7.7 hours. 42.3% of bitches were between 2 to 8 hours into labour when they entered hospital. 15.8% of cases where diagnosed with a delayed birth and 12.8% with an extremely delayed birth. 25.6% of the patients showed no signs of labour. 3.4% were brought to the hospital at the beginning (1 to 2 hours) of the labour.

In this analysis the maternal dystocia (57.6%) outnumbers the foetal dystocia (42.4%). The most common cause of dystocia was uterine inertia (49.7%), followed by single whelps litters (16.0%) and positional abnormalities (12.2%). The whelps had the best chances of survival when the cause was uterine inertia (79.0%). However, in single whelp litters the chances of survival are only 50.0%.

Labour ended successfully with non-surgical treatment in 260 bitches (37.3%) of all breeds. 60.9% of theses bitches were treated with a combination of contraction medication and a intrapartum spasmolytic, with and without manual aid. The best result was achieved in maternal dystocia with non-surgical treatment (75.5%).
In foetal dystocia, medical treatment played a minor role. Only single whelp litters and extremely large litters reacted well to this form of therapy. The need here of manual help during non-surgical treatment increased.

Due to dystocia, 437 bitches or 62.7% of all dogs needed surgery. In 240 animals (54.9%) a conventional caesarian was necessary and in 197 animals (45.1%) a radical caesarian was necessary. It is to be mentioned, that the caesarian delivery played a crucial role in combating foetal dystocia. 72.3% of the birth complications due to foetal dystocia could only be managed with surgery. In maternal dystocia it where only 55.7%. Compared to maternal dystocia in cases of foetal dystocia, the percentage of radical caesarian is higher. Foetal dystocia is difficult to treat with medication.

Regardless of the type of dystocia and its treatment, the more complications a patient has, the less likely the chances of survival for the whelps.
The best chances of survival after maternal dystocia were achieved with non-surgical treatment and after foetal dystocia with conventional caesarian section, regardless of the number of complications.