

7. SUMMARY

Vaginal disorders in the bitch

In the present study vaginal disorders of 233 bitches were described. A literature survey serves as an introduction. Clinical records of all bitches with vaginal disorders in a period of 10 years were analysed at the Clinic for Reproduction of the Free University of Berlin, of the Veterinary Clinic-Animal shelter-GmbH Rostock and of several veterinary practitioners.

60 bitches suffered from a vaginitis, 41 had a vaginal prolaps, 122 a vaginal neoplasia, seven congenital anomalies and three injuries. Any patients with vaginal prolaps or tumors had injuries of the vaginal mucosa too, three of them after automutilation.

Anamnesis, clinical signs, breed and age were evaluated. In 22 bitches with vaginitis bacteriological investigations were carried out and in 76 cases of vaginal tumors a histological investigation was performed. Congenital defects were clarified and in two cases an X-ray was performed.

60,0 % of the bitches with vaginitis were of large breeds, only eight percent of small breeds. In most cases (73,3 %) a juvenile vaginitis was diagnosed. The average age was 5,6 months. In 26,7 % of cases the vaginitis was diagnosed for the first time in adult bitches (average of age: 5,8 years), often with underlying diseases. They often were of small breeds. The juvenile vaginitis was found significant frequentlier ($p=0,014$) in bitches of large breeds than in bitches of small breeds.

The microbiological investigations showed 57,9 % monocultures and 42,1 % mixed cultures. In most cases (49 %) *Staphylococcus spp.* (*S. intermedius*, *S. aureus*, *S. epidermidis*) were isolated and in 22 % of cases *Streptococcus spp.* After treatment with antibiotics and/or local flushing the clinical signs in 15,0 % of the bitches did not stop or returned after some days. The juvenile vaginitis of the bitches stopped after and less treatment after sexual maturity.

41 bitches showed a prolaps of vaginal tissue, 39 of them during oestrus and two during last days of pregnancy. The age of the bitches with prolaps during oestrus was in average 18 months. Vaginal prolapses were observed especially in bitches of large breeds (58,5 %). The highest incidence had Boxers and Doberman (12,2 %), Staffordshire Terriers (9,8 %) and German shepherd dogs (7,3 %). The number of bitches of brachicephal breeds was especially high (36,6 %). Most of the vaginal prolapses were so called pearshaped prolapses (67,9 %). 21,4 % showed a prolaps in form of three lobes and 10,7 % were complete doughnut-shaped prolapses of different size. The form and circumference of prolapsed tissue was not related to the duration of the disease. Surgical treatment as the treatment of choice was carried out in 75,6 % of all prolapses.

Neoplasia of the vagina was a problem of older dogs. The bitches of 26 breeds had an average of age of 9,1 years. Most of them were mongrels (16,4 %) followed by German shepherd dog (15,5 %), Poodle (15,6 %) and Cocker Spaniel (11,5 %). In 49,2 % of cases the bitches were of small breeds. Main signs of vaginal neoplasia included prolaps of tumor tissue (54,1 %), sanguineous vaginal discharge (22,9 %) and bulging of the perineum (9,8 %). 18,8 % of the bitches did not show any specific signs. Tumor locations were in 81,9 % of cases the vagina propria and only in rare cases the vestibulum, perivaginal, perivestibular or perineal area. Of all investigated tumors 81,6 % were benigne. Most vaginal tumors were fibromas (43,4 %), leiomyomas (18,4 %) and lipomas (10,5 %). Of the malignant tumors sarcomas had the highest frequency (14,5 %). Single or multiple growth is no sign for dignity. Surgical excision was the method of choice. It was performed in 93,4 % of patients. An episiotomy was necessary in 39,5 %.

Congenital anomalies were diagnosed as stenosis (n=3), vaginal septa (n=3) and ano-rectal defect (n=1). Treatment and prognosis were dependent on the extent and form of the defect. The injuries resulted from assisted delivery (n=1), mating (n=1) and trimming (n=1).