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Vulvar development of bitches after castration

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Castration has an important effects on the urogenital anatomy of bitches. During the estrous cycle the vulva undergoes a physiological change in size. After castration the absence of the sex hormones lead to changes in the urogenital tract ¹. This study presents the influence of castration on the anatomy of the vulva. The study included eighty dogs of different breeds and different age. The bitches were divided into two groups. Group one included castrated bitches, whereas group two included non-castrated bitches. Bitches from Groups one (n: 25, age: 9 - 164 months) were castrated at least 6 month ago via ovariectomy or ovariohysterectomy. Non – castrated bitches (Group 2, n: 55, age: 6 – 179 months) served as a control group and were in anestrus or metestrus. In all patients of both groups the vulva length and the visible part of the rima vulvae was measured. The collected data showed that the visible part of the rima vulvae was smaller in spayed dogs than in the not castrated control group. The percentage of covered portion of the rima vulvae was, due to a bigger vulval fold, higher in the castrated bitches (p=0.006). Although the body size of the dog had a positive effect on the total length of the rima vulvae, the relation of the visible part to the covered part was independent from body size. Early castration increased the percentage of covered portion of the rima vulvae compared to bitches which were castrated late in life. Obesity resulted in a higher percentage of covered portion of the rima vulvae. From the collected data we can conclude that castration has a negative effect on the vulvar development. This should be taken into consideration especially in young as well as in dogs with obesity.