Spay/Neuter & Cancer: What Does the Data Really Say?

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Spaying/neutering are common practices in veterinary medicine aimed at controlling pet populations and preventing issues. However, recent research has appropriately raised questions about a potential association between these procedures and an increased risk of cancer in dogs and cats.

Several studies suggest a complex interplay between sex hormones and cancer development, indicating that hormonal changes resulting from spaying or neutering could contribute to an altered cancer risk. In female dogs, early spaying has been linked to a decreased incidence of mammary and uterine cancers, compared to possible increased incidence of other cancers such as mast cell tumor, hemangiosarcoma, urothelial carcinoma and possibly lymphoma. Neutering male dogs may be associated with a lower risk of testicular tumors, but a higher risk of urothelial, prostatic and/or bone cancer in some breeds. Unfortunately, the vast majority of studies have utilized very small numbers of dogs with each of the above various tumors, making for less trust in making global recommendations. This trust is further reduced when large studies have found a prolongation in lifetime compared to intact patients.

In cats, spaying or neutering has also been implicated in altering cancer susceptibility but the numbers of studies are remarkably less than in dogs currently. Early spaying in female cats appears to similarly reduce the risk of mammary tumors, but may concurrently increase the risk of other malignancies, such as lymphoma. Neutering male cats has been associated with an increased risk of certain cancers, including urinary tract cancers.

While the current body of evidence highlights correlations, establishing definitive causation remains challenging. Research to elucidate the underlying mechanisms and inform more nuanced recommendations for veterinary practitioners is needed. A balanced approach, weighing the benefits vs the health risks, is essential to guide responsible and informed decisions regarding spaying and neutering practices in companion animals.

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