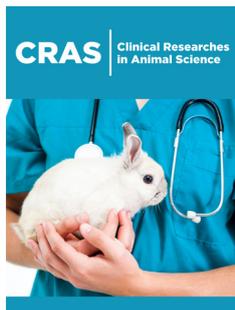


# Case Report: Mastectomy for Mammary Fibroadenoma in Miix Pom Dog

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## Abstract

A female mix pom dog, 6 years old, and weight 6kg, has a lump on the second and third mammary glands on the right. Physically and clinically the dog looks healthy. The results of the histopathological examination of tumor tissue biopsy showed an area of necrosis filled with fibrinous exudate fluid surrounded by connective tissue fibroblasts and infiltration of inflammatory cells of neutrophils and macrophages, so that dog was diagnosed with mammary fibroadenoma with faustal prognosis. The dog was treated by performing mastectomy surgery to excise (remove) the tumor. After surgery, the dog was given cefotaxim 20mg/kg BW intravenous. Then continued with cefixime 10mg/kg BW and mefenamic acid 25mg/kg BW twice a day orally for five days and topical drugs given enbatic powder. On the 14th day after surgery the dog was declared cured with a surgical wound that was dry and fused.

**Keywords:** Abscess; Female dog; Mastectomy; Fibroadenoma

## Introduction

Mammary tumors are the second highest case that most often occurs in dogs after skin tumors [1]. This tumor often occurs in female dogs aged 9 to 11 years, with enhancement incidents starting at age about 6 years [2]. Hormonal disturbances are thought to play a major role during the early stages of carcinogenesis due to the presence of estrogen and progesterone receptors in a higher proportion of most mammary tumors [3]. Neoplasia or neoplasm is often called tumors. As definition tumor on inflammation, then tumor in neoplasia also means swelling. But not all swelling are tumors [4]. In general, the treatment of this disease is surgery (mastectomy and ovariohysterectomy /OH), radiation, and chemotherapy.

## Case Report

A female dog named Lucy mix pom breed, 6 years old, weighing 6kg and brown hair color, there are lumps on the 2nd and 3rd mammae on the right. The lump has been seen for six months and is getting bigger and bigger. Dogs have been mated and gave birth 3 times. After that, the dog was given birth control injections. Physically and clinically the dog appears healthy. The histopathological examination of the tumor tissue showed that there was an area of necrosis filled with fluid-filled fibrinous exudate surrounded by fibroblast connective tissue and infiltration of neutrophil and macrophage inflammatory cells, so that the dog suffers from fibroadenoma with a faustaan prognosis. The dogs are treated with surgical mastectomy for excision of the tumor in the infected mammary.

After surgery, the dog was given the antibiotic cefotaxime 20mg/kg body weight intravenously. Then followed by the antibiotic cefixime 10mg/kg body weight and the anti-inflammatory mefenamic acid 25mg/kg body weight twice a day orally for five days and powder enbatic. Mefenamic acid is a non-steroidal anti-inflammatory drug that functions

as an analgesic and anti-inflammatory. The mechanism of action of mefenamic acid is to inhibit the action of the cyclooxygenase enzyme, an enzyme that produces prostaglandins, compounds that cause pain and inflammation [5]. The 14th day after the dog operation, the case was declared healed with dry and fused surgical wounds.

## Discussion

Tumors or referred to as neoplasms or neoplasia are collections of abnormal cells that grow continuously indefinitely, not coordinating with surrounding cells and there is no benefit to the body. The term fibroadenoma is the most common type of benign tumor in dogs and cats that appears firm in a nodular form. Mammary tumors are usually associated with disruption of the hormone's estrogen and progesterone with an increased risk of tumor cells occurring after the estrus cycle. These hormones will induce hypertrophy of the mammary parenchyma after the estrus cycle. Before the first cycle the risk of tumor emergence will increase to 8% and more than 26% after the second cycle of estrus or the next estrus. In this case, the dog had a history of birth control injections where the drug contained medroxyprogesterone acetate (a combination of progestin and estrogen) to prevent estrus in dogs. It could be associated with an increased incidence of mammary tumors [6].

## Conclusion and Suggestion

### Conclusion

Based on the history, clinical examination, and histopathological examination, Lucy's dog was diagnosed with mammary gland

fibroadenoma. Treatment is done by surgical mastectomy for total tumor excision. On the 14th day the wound had dried up and closed completely so that the dog was declared healthy.

### Suggestion

Handling cases of mammary gland fibroadenoma need to be done immediately before it spreads to other parts and to prevent effects or complications that endanger the dog's health. During postoperative wound care, it is necessary to limit the movement of the dog so that wound healing can be maximized.

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