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Research Article

MAMMARY GLAND TUMOUR IN A DOG

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ABSTRACT
An 8 years old female dog suffered with a history of dullness and hard mammary gland. The mammary gland was surgically excised and it was characterized as firm and well defined clumps. Cut section revealed greyish white discoloration of the mass and cystic spaces. The microscopic structure is dominated by more number of pleomorphic cell infiltrations. Focal area of myxomatous tissue was observed and proliferated cells were supported by connective tissue proliferation.

Keywords: *Mammary Tumour, Female Dog, Cystic Spaces*

INTRODUCTION
Currently, mammary tumors represent 50% of all neoplasms that afflict female dogs (Oliveira *et al.*, 2003) and among these tumors 41 to 53% are of malignant character (Fonseca and Daleck, 2000). Mammary tumors of female dogs have greatly increased in recent years, thus, demanding rapid diagnosis and effective treatment in order to save the animal survival.

Canine mammary gland tumors are one of the most common neoplasms of unsprayed female bitches. Most frequently mammary gland tumors are found in 5 years and older bitches. Dachshunds, cocker spaniels, toy poodles, German shepherds, mixed – breed dogs have been reported to have an increased incidence of mammary neoplasia.

The most common types are tumors from glandular tissues and include adenoma, carcinoma and adenocarcinoma.

Half of all mammary gland tumors are benign and can be treated successfully with surgery alone, while half are malignant and have the potential for metastasis.

MATERIALS AND METHODS
Surgically removed tissue samples were collected in 10% neutral buffered formalin and then washed thoroughly under running tap water overnight, dehydrated in different grades of alcohol, cleared, embedded in paraffin wax and blocks were prepared.

The cut sections of 4 – 5 microns were stained by routine Haematoxylin and Eosin (H&E) staining method.

RESULTS AND DISCUSSION
In the present study, nodular growth was observed in the mammary gland. Cut section revealed grayish white in color, hard in consistency and multiple cystic cavities filled with slimy ambour coloured fluid (Figure 1).

Microscopically, anaplastic carcinoma appears as an infiltrative neoplasm, formed by large pleomorphic cells (Figure 2).

A focal area of myxomatous tissue was observed (Figure 3) and proliferated cells were supported by connective tissue stroma proliferation (Figure 4).

Similar gross and histopathological changes were observed by Andrade *et al.*, (2010), Misdorp *et al.*, (1971). Based on the gross and histopathological findings this case was diagnosed as mammary gland tumour.

Figure 1: Note Greyish White Discoloration of the Mass along with Multiple Cystic Spaces

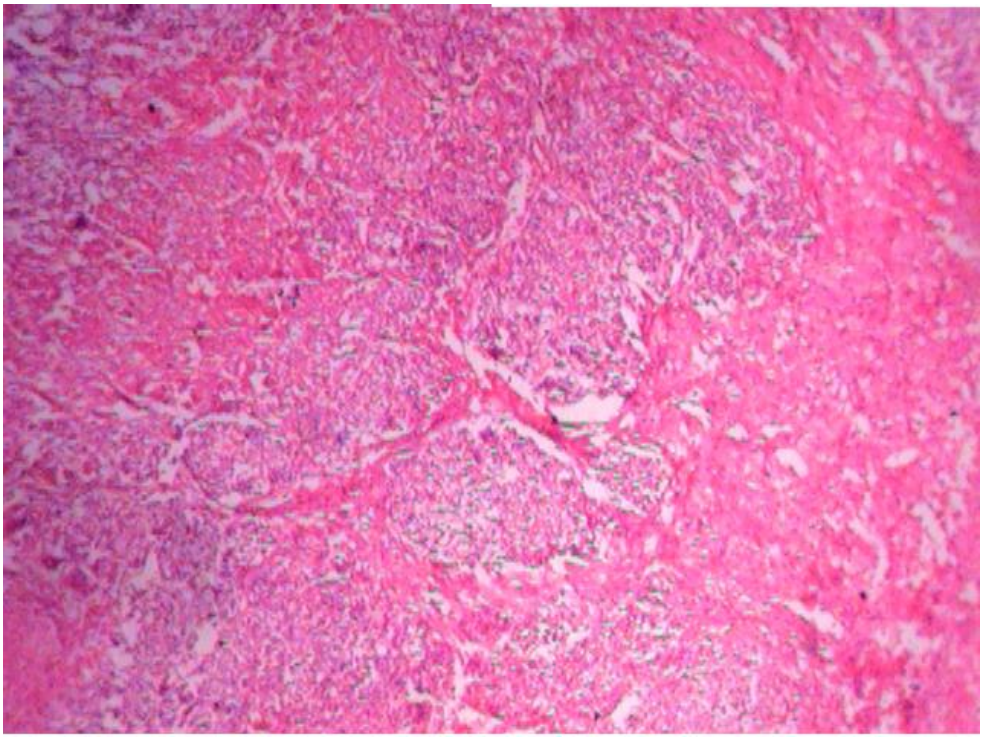

Figure 2: Note Large Number of Pleomorphic Cells Infiltration, H & E x 100

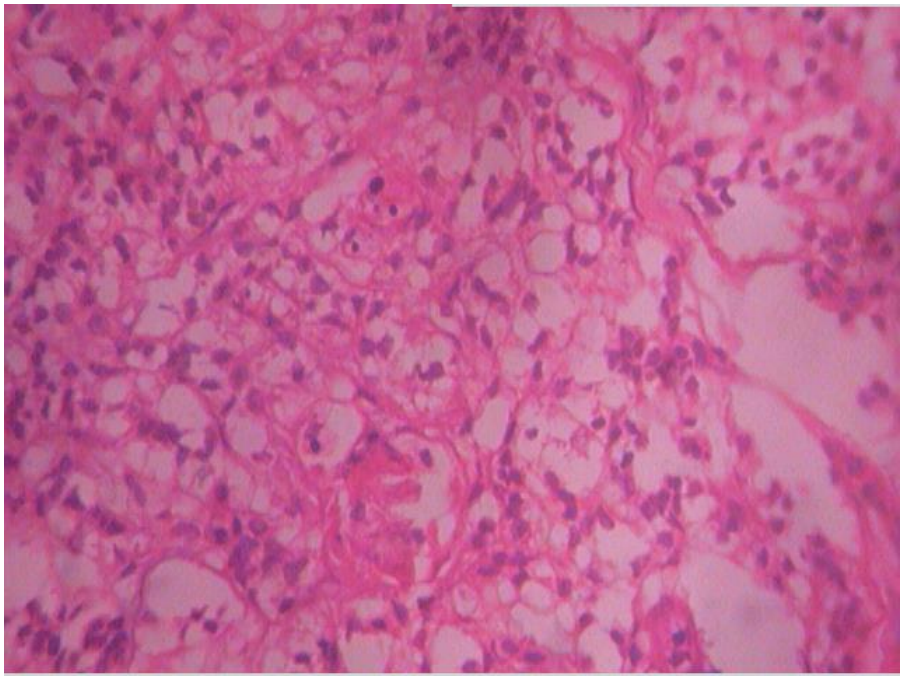

Figure 3: Note Focal Area of Myxomatous Tissue H & E x 400

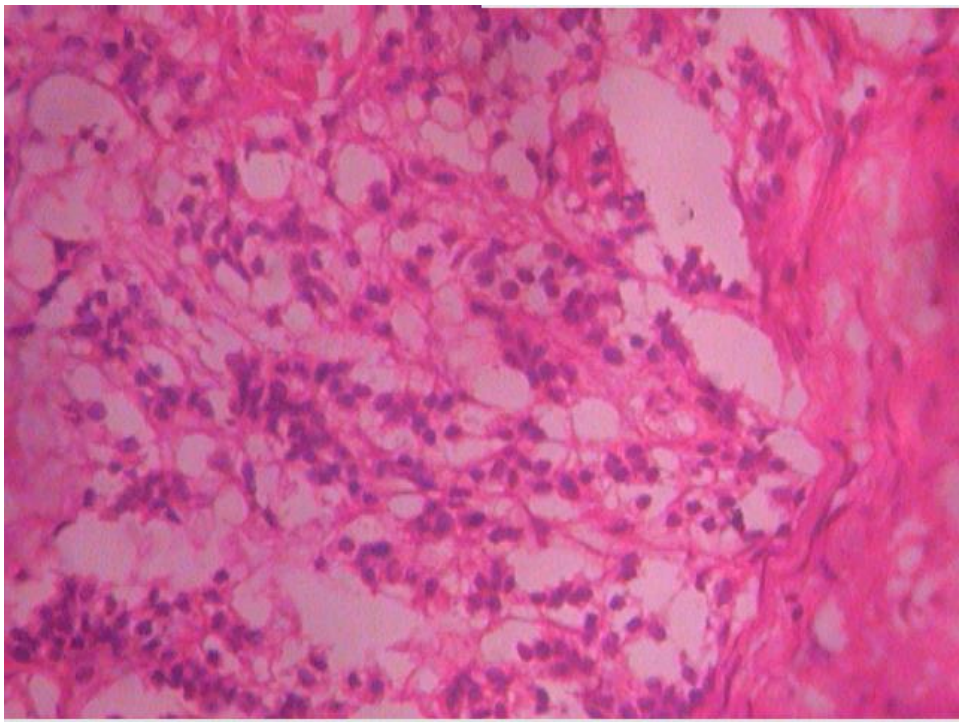

Figure 4: Note Proliferated Cells Supported by Connective Tissue Proliferation H & E x 400

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