

Apocrine glands cystomatosis in the pinna of seven cats: Clinical and histopathological findings.

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INTRODUCTION

Ceruminous glands are located in the dermis of the external ear canal. They are specialized modified apocrine sweat glands that secrete waxy cerumen instead of watery sweat.

Feline ceruminous cystomatosis (also known as ceruminous gland hyperplasia, ceruminous adenoma or apocrine cystadenomatosis) is considered an uncommon, non-neoplastic disorder. It has been mainly reported in the pinnas ceruminous glands especially in adult to middle aged cats, particularly Persians and Abyssinians. The lesions most commonly affect the concave pinna, external auditory canal opening and occasionally the auditory canal. Grossly they are dark-blue, blue-gray or purple solitary or multiple coalescing nodules or vesicles. The etiology is unknown, but it may be a sequel to otitis externa, a senile degenerative changes or a congenital condition.

The goal of this study is to report the clinicopathological findings of seven cats with apocrine cystomatosis in the pinna.

CLINICAL CASES

Computer database from 2008 to 2015 were searched. Cat breeds represented as follows: 4 Persians, 1 Siamese, 1 Himalaya and 1 unknown. There were four females (1 spayed) and three males (1 castrated, 2 unknown). Ages ranged from 6 to 10 years old (average 8). Six cats showed a bilateral presentation; in one it was not mentioned. In all cases the nodules were presented in the concave surface of the pinna, in two there was external auditory canal involvement. They were dark blue, brown or black color (see fig.1A-B).

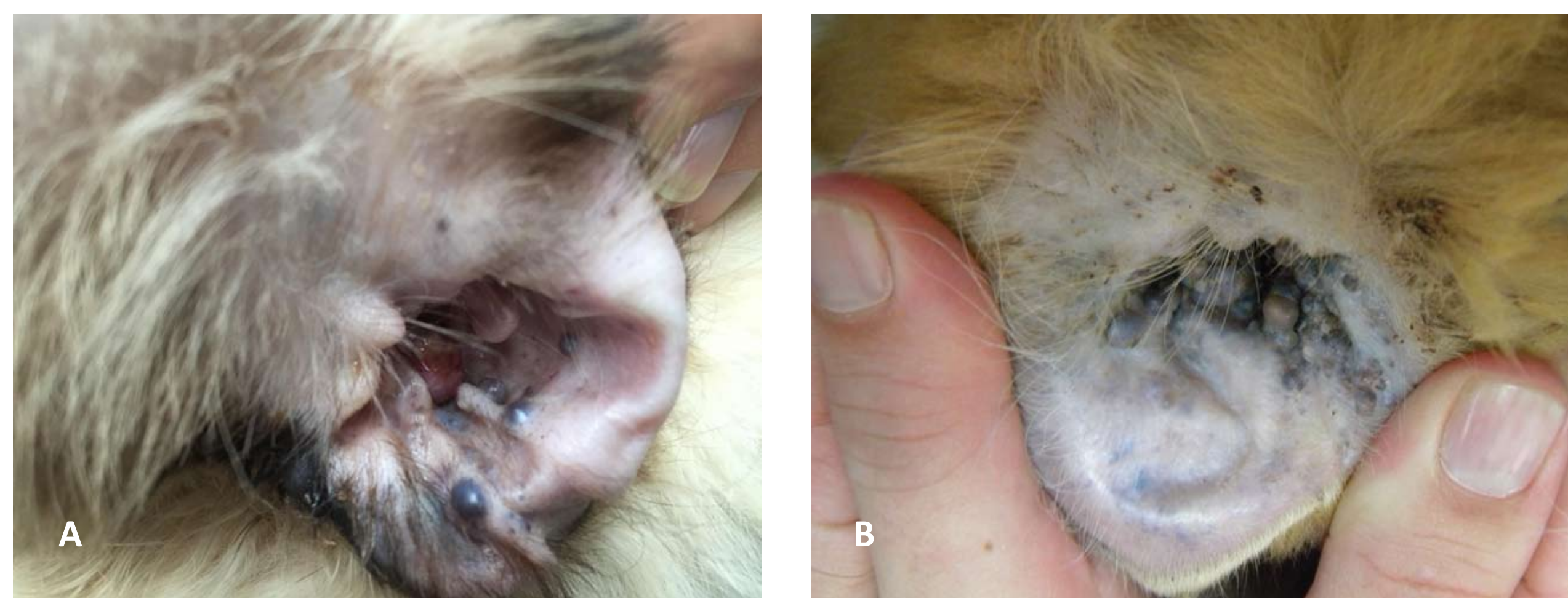


Fig 1- Both pinnae show few or several dark-blue nodules (A and B). Especially in Fig. B, the majority of them are presented in ear canal opening.

PATHOLOGICAL FINDINGS

In each case one or more biopsies were taken and processed for histopathological examination. In two of them a cytological examination was done. The microscopic findings were: the dermis showed several cavities filled with eosinophilic or brown contents sometimes mixed with macrophages. The wall is composed of a mono or multi layers of cubic cells sometimes atrophic. Furthermore, mineralization, cleft formation and rupture of the wall with subsequent granulomatous inflammation were observed (see fig.2 and 3).

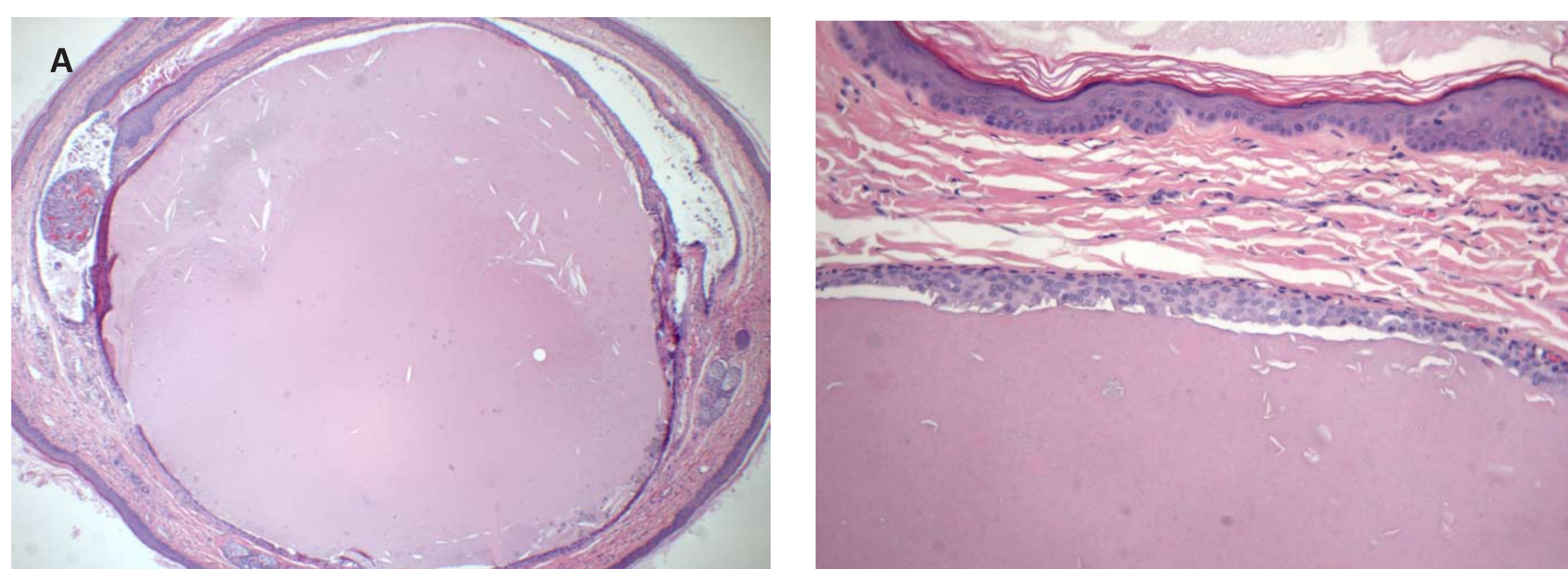


Fig 2- The dermis. There is a single cyst with eosinophilic acellular contents (A). Inset. It shows a detail of the cyst wall. In the upper the epidermis is seen.

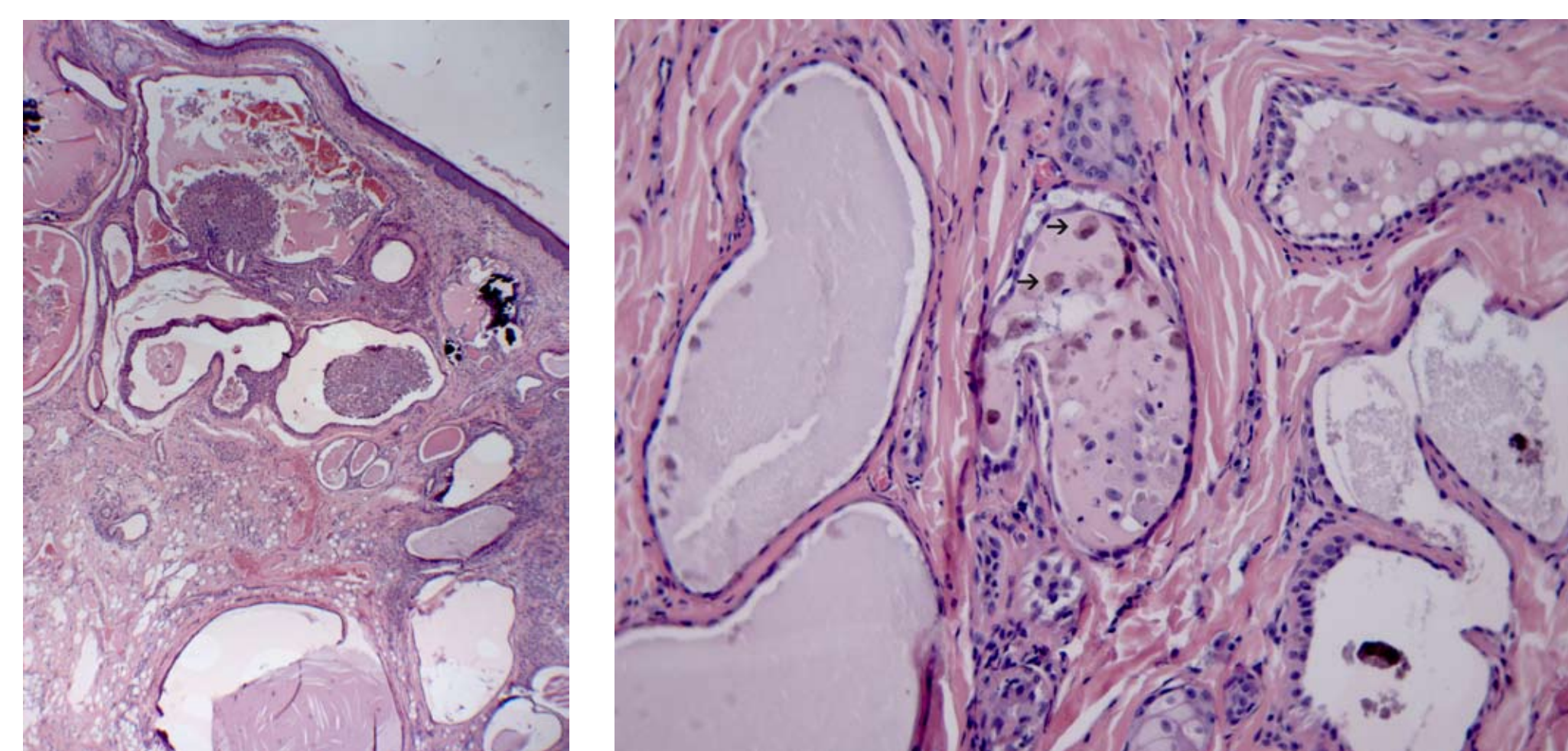


Fig 3- There are multiple cavities lined by a monolayer of cubic atrophic cells (A). Inset showing the eosinophilic material with some macrophages (black arrow).

Cytologically there was a large cell cluster with moderated nuclear changes (see fig.4).

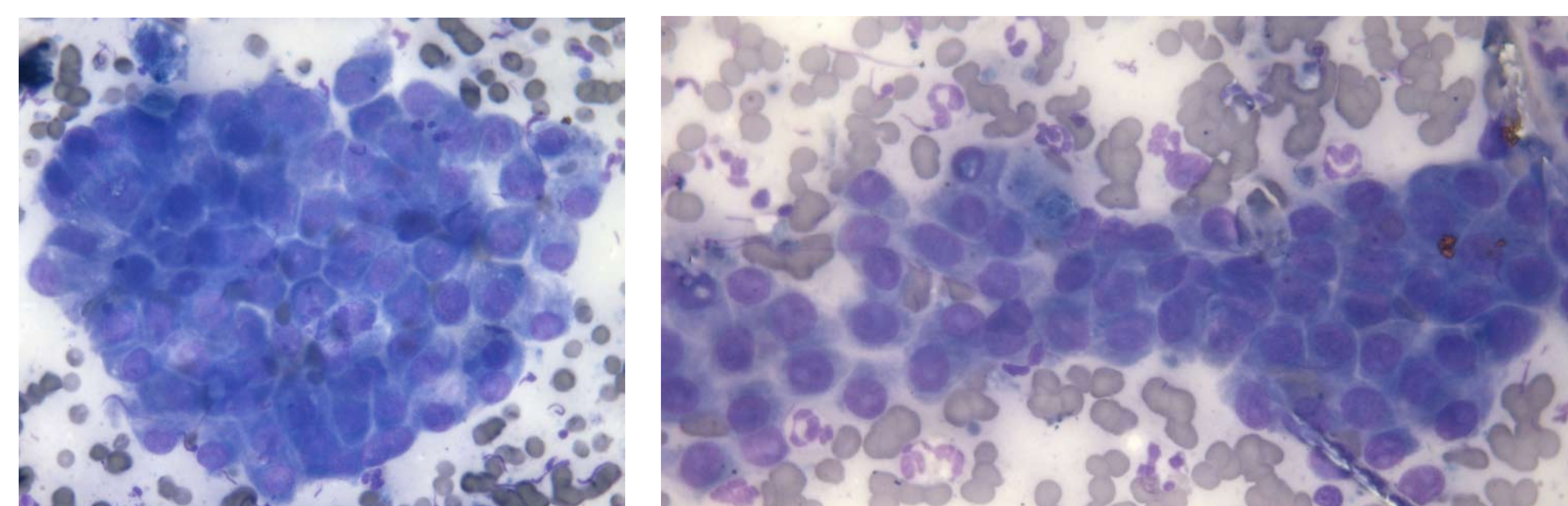


Fig 4- An aspiration cytology. Two different clusters or groups of homogeneity cells are present. Giemsa stained.

DISCUSSION

The clinical signalment found in these seven cats is very similar to the ones reported in the literature, specially the Persian cat susceptibility, also, the age and the no gender predisposition. Additionally, for the first time the histopathological findings of a series case are described which mainly are characterized by one or multiple clusters of dilated ceruminous cyst glands lined by one or more layers of cubic cells sometimes atrophic. The cyst content is eosinophilic to brown, on occasions with cholesterol clefts and mineralized material and these are the microscopic features why they are classified as non-neoplastic disorder. Furthermore, this is the first report of this pathology in Latin American. The main differential diagnoses are melanocytic and vascular neoplasias, as well adenomas or adenocarcinoma ceruminous glands tumors (see fig. 5).

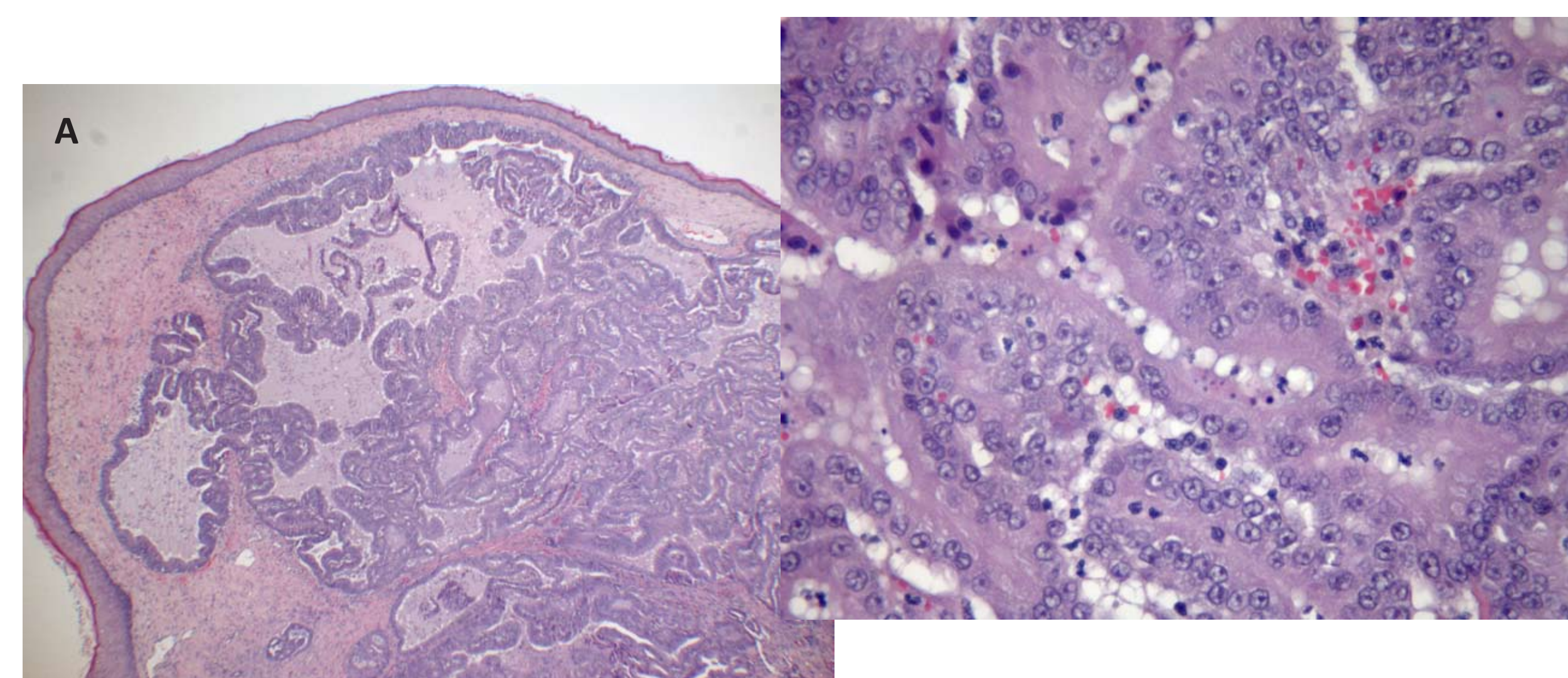


Fig 5- An adenocarcinoma. Some glands are dilated with proteinaceous material mixed with inflammatory cells (A). Inset. There are variations in nuclei sizes and nucleoli.

LITERATURE RECOMMENDED

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