

A retrospective study of canine apocrine cutaneous cystomatosis

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INTRODUCTION

Apocrine cystomatosis, also known cystic hyperplasia of apocrine sweat glands, is an uncommon nonneoplastic condition in dogs of unknown cause. The most frequent clinical presentation is solitary or grouped nodules forming bullae or vesicles, usually of less than 5 mm in diameter, localized mainly in the skin of the head and neck. It affects middle aged or older dogs with no breed or gender predisposition reported. Histopathologically the disease is characterized by dermal clusters of dilated apocrine glands, lined by a monolayer of cuboidal epithelial cells. The purpose of this retrospective study is to describe the signalment, anatomic location and the dermatopathological findings in 18 dogs within this infrequent nonneoplastic tumor.

CLINICAL CASES

The four breeds more frequent represented were Schnauzers 4 (22%), mixed 3 (16.6%). Siberian husky and Golden retriever with 2 case each. There were 11(61%) females and 7(38.8%) males. The age ranged from 4 to 13 years (average 9). The anatomic localization was in the posterior limbs (7/18), neck (5/18), head (2/18), and other areas (4/18). See fig.1

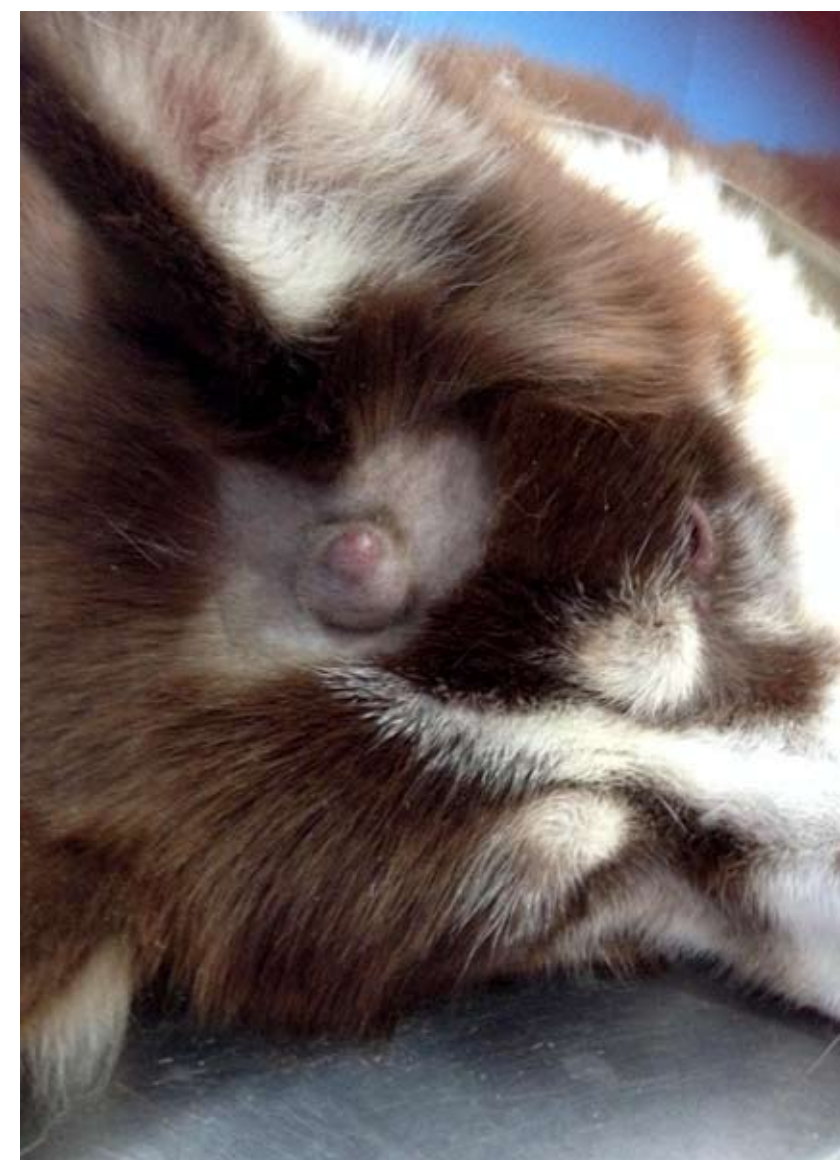


Fig-1-Siberian husky dog with a nodule growing in the forehead.

DERMATOPATHOLOGICAL FINDINGS

In general there were in the dermis as well in the hypodermis (subcutis), groups of dilated empty sweat glands lined by monolayer of cuboidal epithelia cells with apical blebbing, some of them atrophic, sometimes containing a proteinaceous material, occasionally with wall rupture and secondary granulomatous inflammation. (see fig.2 and 3).

DISCUSSION

This is the first retrospective study of this cutaneous entity, which is reported infrequently, in fact we searched the literature with keys words "cystomatosis dogs" and only one case report and book section was found (see the references). In addition, two dermatology books do not mention this pathology. The literature does not refer a breed predis-

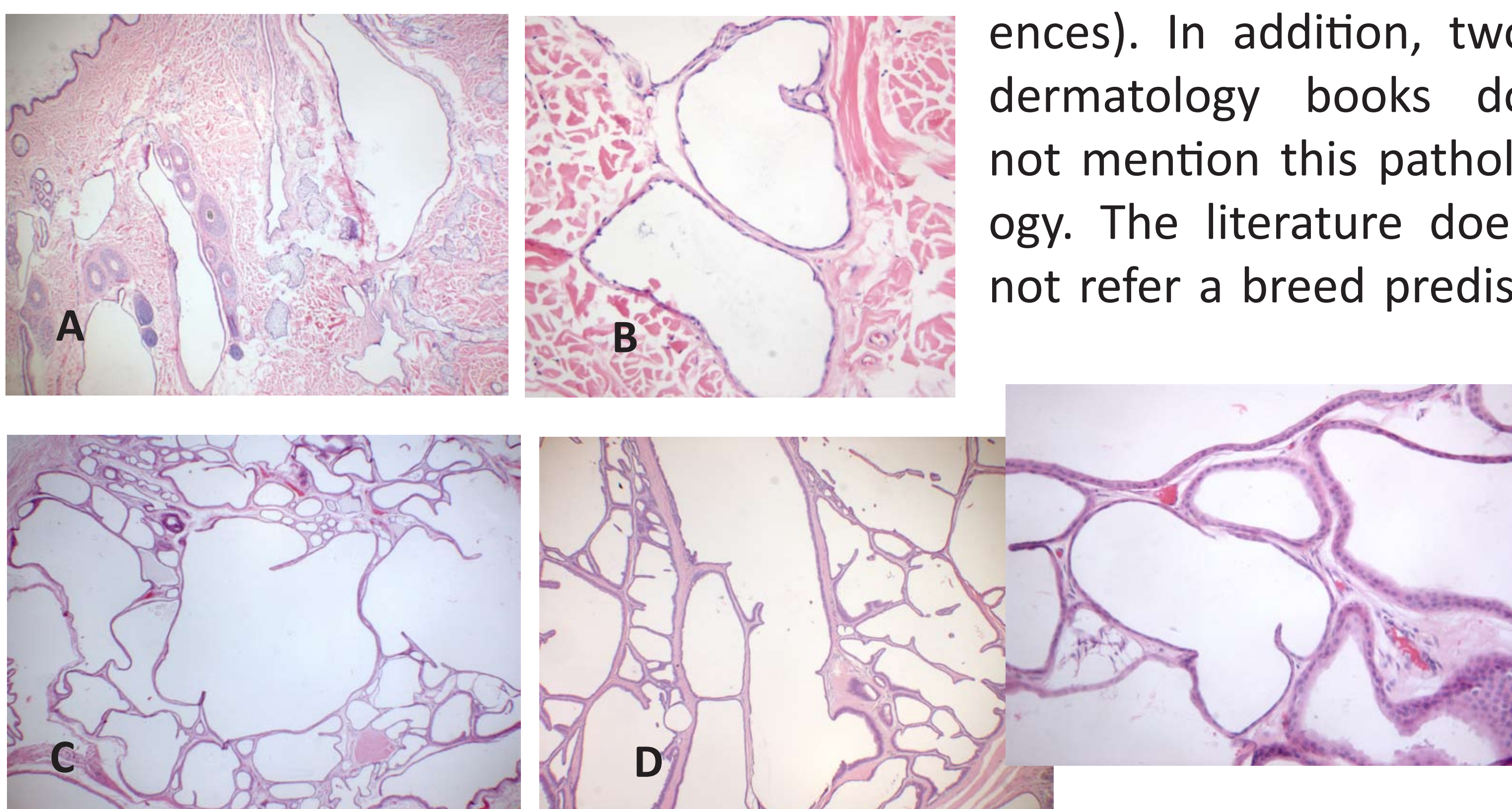


Fig-2- The dermis has several empty and dilated apocrine glands with atrophic cubic cells (A and B). The subcutis with several clusters of distended apocrine sweat glands (C, D, and inset).

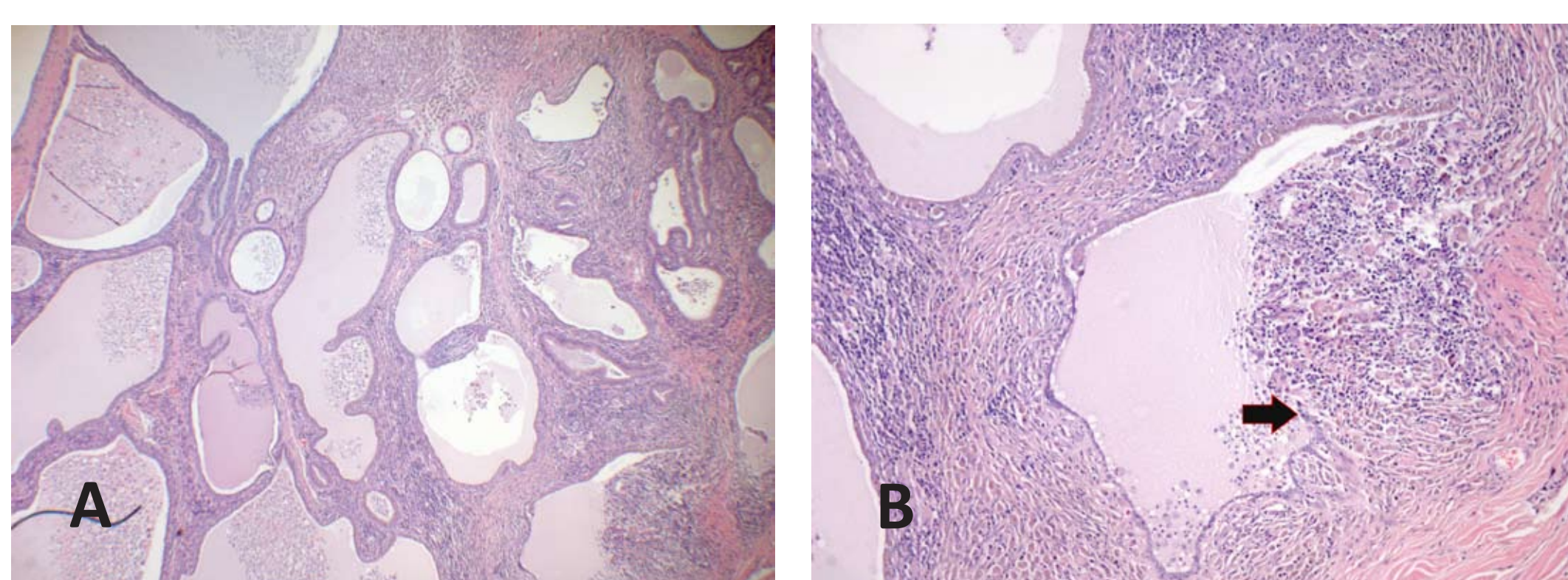


Fig-3-The apocrine glands are dilated with proteinaceous contents (A). The wall is ruptured (see the arrow) with secondary granulomatous inflammation (B).



position; however, we found an overrepresentation in Schnauzers and mixed breeds. As a principal anatomic localization the literature reports the head and neck; nevertheless, we found more cases in the posterior limbs. Regarding the age, gender and the microscopic changes, our findings are similar to those already reported. The two major differentials are a single apocrine cyst, which is relatively common and a multiple apocrine cyst that is infrequent found (see figs.4-5 and 6).

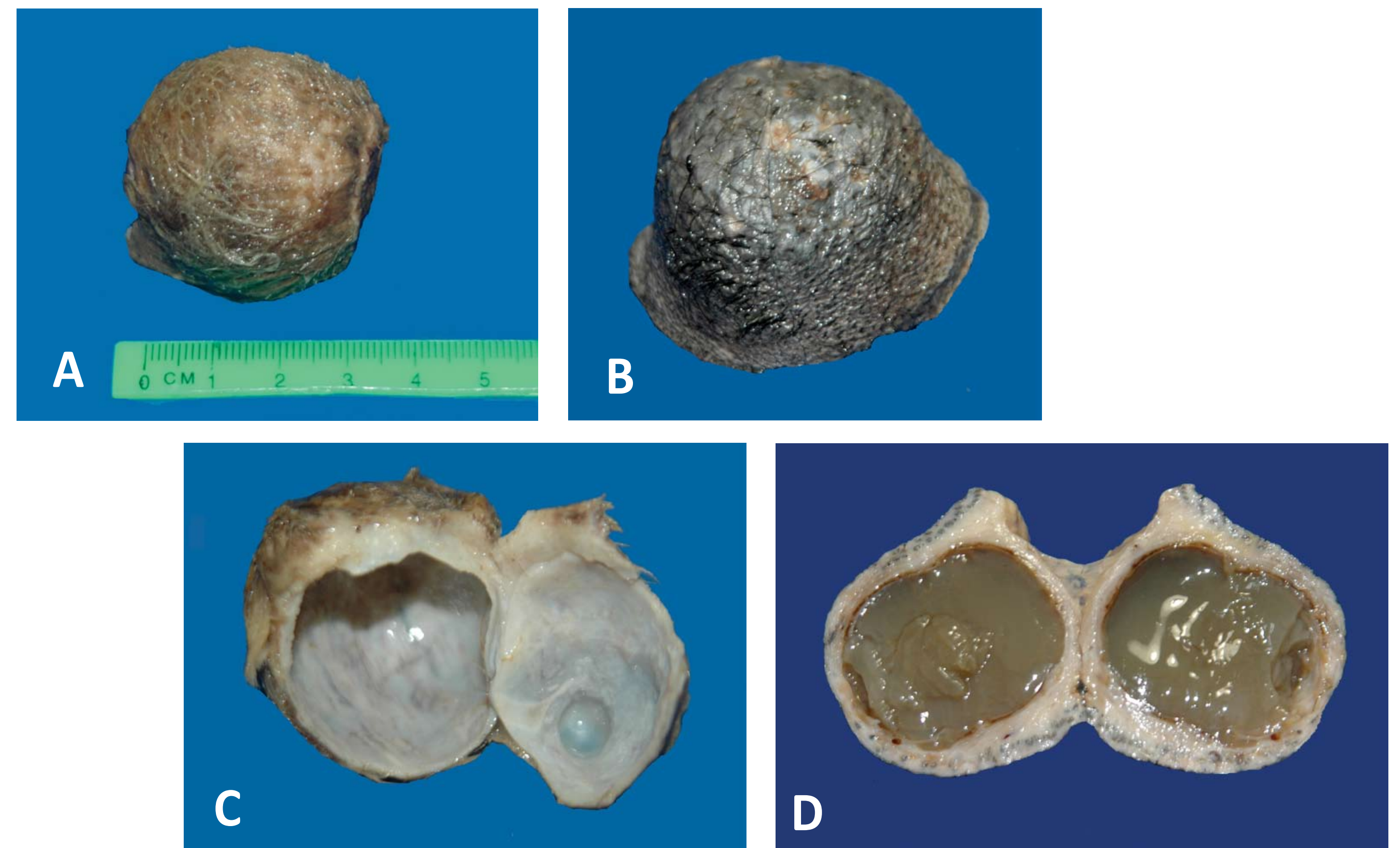


Fig-4- Two different cutaneous nodules (A and B). After formal fixation a transversal section was done. In (C) the substance was translucent contrary to (D) (gelatinous aspect).

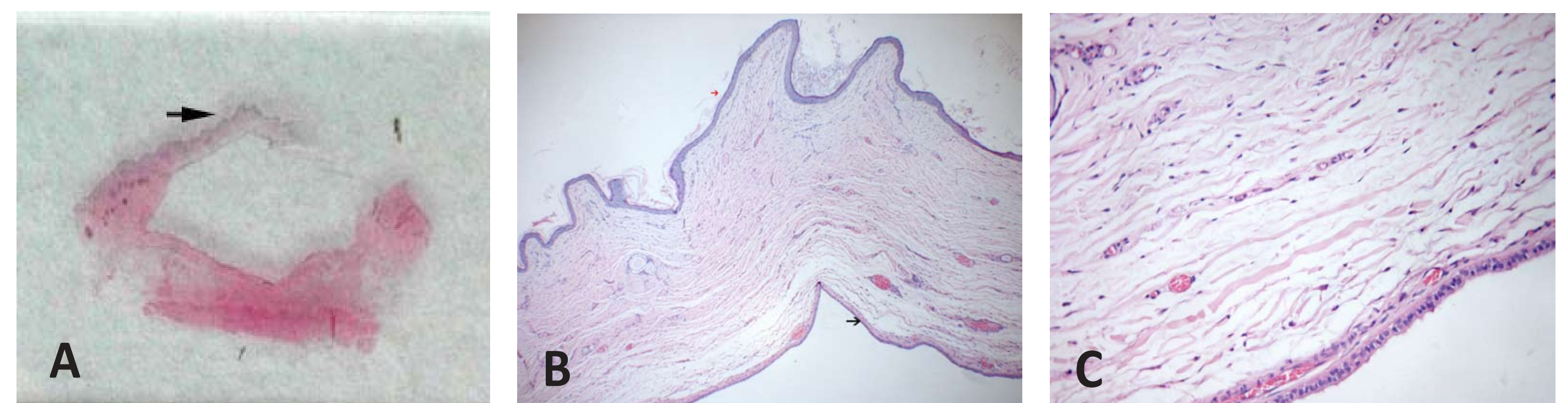


Fig-5-Picture taken from the microscopic glass. An empty cavity (the arrow point the epidermis (A)). The microscopic features showing an empty cavity lined by a monolayer of cubic cells see the arrow (B and C).

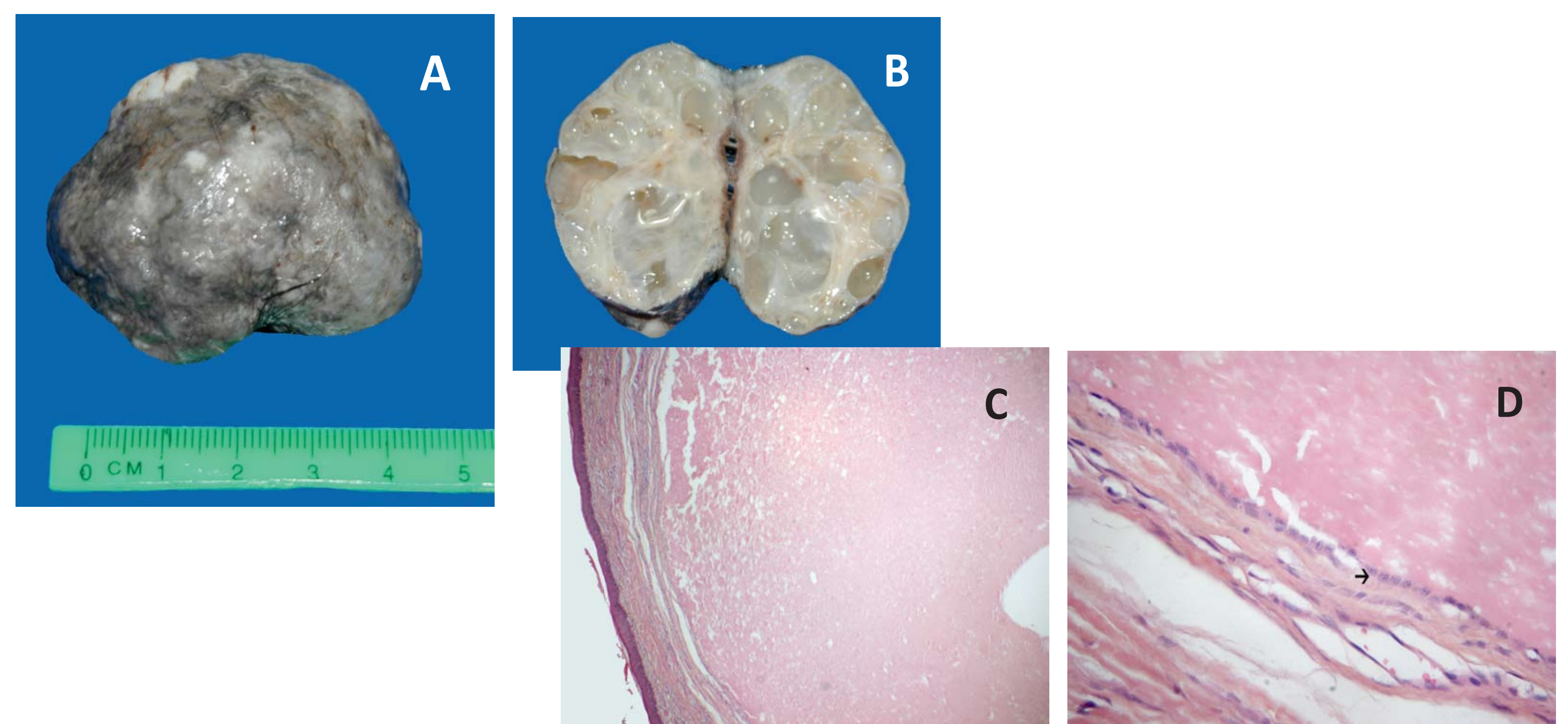


Fig-6- Cutaneous mass showing after cut section multiple cavities (A and B). The microscopic characteristics mainly composed by large cavity filled with proteinaceous material. The arrow shows the atrophic wall (C and D).

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