Communication

Clinical and pathological study of feline mammary fibroadenomatous change associated with depot medroxyprogesterone acetate therapy

[Aspectos clínicos e patológicos da alteração fibroadenomatosa mamária felina associada à terapia com acetato de medroxi-progesterona repositoriô]

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Feline mammary fibroadenomatous change (FMFAC) is a growth disturbance in which the mammary glands become exceedingly enlarged due to rapid but seemingly orderly, non-neoplastic expansion of ductal epithelium and stroma (Allen, 1973). It is seen mainly in young, sexually intact female cats at puberty during the first estral cycle, pregnancy or pseudo-gestation. It represents a hormone-dependent lesion in which endogenous progesterone induces an exaggerated proliferative response of the mammary glandular tissue leading to massive enlargement of the mammary glands (Hayden, Johnson, 1986). Progestin-induced local synthesis of GH and insulin-like growth factors (IGFs) in mammary epithelial cells as well as estrogen priming of the mammary tissue by progesterone have been suggested as additional pathogenetic mechanisms involved in the development of FMFAC (Mol et al., 1996). FMFAC has also been associated with synthetic progestin therapy e.g. medroxyprogesterone acetate (MPA) and megestrol acetate (MA) when used during prolonged periods (months to years) in intact or neutered female and male adult cats (Hayden et al., 1989). MPA is commercially available as a repositol (depot) injectable product used mainly as a contraceptive drug for dogs and cats. A single injection of depot MPA forms a compound that is capable of maintaining effective circulating concentrations for several months (Plumb, 1999). In some countries, there are no licensed products to prevent or suppress the estrus in female cats (Noakes et al., 2001). Nevertheless, in other countries, parenterally administered steroids are still available in the market for these purposes (Concannon, Meyers-Wallen, 1991). In Brazil, therapy with MPA continues to be used in feline veterinary clinical practice despite its deleterious effects. Clusters of cases of FMFAC have been described in this country in recent years. There have been an increasing number of anecdotal and unpublished reports as well as short communications and retrospective studies from Brazilian local university veterinary hospitals and private practitioners which describe cases of young cats treated with one single dosis of MPA that developed FMFAC (Trindade et al., 2001; Souza et al., 2002). A cause and effect relationship between MPA administration and FMFAC is still a current focus of considerable debate and remains as a controversial issue due to the confounding effects of synthetic progestins and those of endogenous hormones on mammary tissues.

The purpose of the present study is to report the signalment, history, clinical and pathological findings, management and outcome of six cases of FMFAC associated with MPA therapy.