CONCLUSIONS

- Multimodal treatment combining an aggressive initial surgical and chemotherapy (doxorubicin, toceranib) might yield a better outcome in the case of AS.

On historyopathology AS appears as clusters of fusiform cells with marked anisocytosis, anisokaryosis, a single prominent nucleoloi and basophilic cytoplasm (Fig 5). A lymphatic origin is suspected (lymphangiosarcoma); however, the term AS is preferred over lymphangiosarcoma because a clear lymphatic endothelium involvement is not usually found on biopsies.

At the time of manuscript submission, survival time of our patient was twelve months, in contrast with previous reports that describe median survival times between 1 and 6 months.

Local recurrence after surgical excision is common. In our case, despite of achieving clean margins on our second surgery the tumour recurred. Therefore we recommend an aggressive initial surgical, with wide 3 to 5-cm margins and one or two deep fascial planes, which may improve the disease free interval.

Chemotherapy treatment in our case included doxorubicin and toceranib. Small number of chemotherapy protocols for AS are published in veterinary literature, being doxorubicin the most frequently used. Toceranib has been described in one case.

In humans, treatment includes surgical excision with chemotherapy. Surgically negative margins are of great importance because 50% of patients with positive margins need a second surgery. Doxorubicin has traditionally been the first-line chemotherapy. More recently, phase II studies suggest that weekly paclitaxel protocol at 80 mg/m² is superior to doxorubicin for unresectable AS in humans, with a median survival time of 7.6 months and a response rate of 19%. Due to the unavailability of paclitaxel in Spain, this protocol could not be used in our case.

Biweekly gemcitabine has been effective as a rescue protocol in humans. Molecular targeted therapy with sorafenib has shown a response rate of 13% and progression-free rate at 6 months of 31%. Other target therapy treatments reported are imatinib and bevacizumab.

Three cases of electrochemotherapy with bleomycin in conjunction with doxorubicin and radiotherapy have recently been described in human AS. Although this treatment has not previously been used in feline AS, it has shown excellent results in feline superficial squamous cell carcinomas and it has been considered in our case.

Figure 1: Initial presentation
Figure 2: First surgery
Figure 3: Second surgery planning
Figure 4: Second surgery final results
Figure 5: Histopathology