Melanomas tend to occur in horses of over 6 years of age in mares, geldings and stallions alike. They virtually always occur in grey horses although other colours may on occasion be affected. Arabs, Percherons and Lipizzaner breeds may be more commonly affected and certain family lines have also been identified to be predisposed to the condition probably as a result of in-breeding. Regardless of breed, most grey horses will develop melonomas with virtually all greys developing the condition by their late teens.

The most common site for melanoma development is the underside of the tail and around the anus. Other sites on the tail may also be affected with the tumour also seen around the lips, at the base of the ear around the parotid salivary glands, within the guttural pouches, around the eyes and on the external genitalia. The tumours may appear to be within or beneath the skin and may or may not be covered with hair. They are usually firm and nodular or plaque-forming. Where they are not covered in hair they are dark black in colour. As they develop they may become ulcerated or ooze a thick, black, oily discharge. Nodules often become coalescing as they grow.

**Figure 1:** A small raised plaque to the right of the anus indicating early melanoma development.

**Figure 2:** More advanced melanoma formation around the anus

**Aetiology**

Melanomas are tumours of pigment containing cells in the skin called melanocytes. Their cause is unknown but they are not thought to be induced by exposure to ultraviolet light as they are in man. They are generally more benign than human malignant melanomas.

**Clinical Signs**
Melanomas usually grow slowly over a number of years but they can at any point start to grow more rapidly and spread to internal organs. Around two thirds of horses will have evidence of internal spread at post mortem examination; however, in the vast majority of cases there are no clinical signs related to the internal spread.

**Diagnosis**

Diagnosis is usually based on characteristic clinical appearance in grey horses. However, where there is doubt examination of a biopsy enables confirmation of the diagnosis.

**Treatment**

Medical treatment with the oral drug cimetidine was once popular but has largely been discredited. Cimetidine is expensive and in the absence of proof that it works is not recommended. In cases where it was reported to have worked it tended to cause a perceived slowing of the growth of the tumours rather than remission.

Surgical excision is the mainstay of treatment and is often accompanied by cryosurgery (freezing). Incomplete excision may increase the risk of aggressive re-growth or metastasis. Despite this there is an increasing trend toward aggressive removal of melanomas when they appear and before they become too large to effectively excise.

Chemotherapeutic agents such as cisplatin are also effective in treatment.

The decision whether to treat or monitor early tumours is one of owner and veterinarian preference.
Welfare Implications
Melanomas rarely cause welfare concerns until they become extremely large and result in discomfort or prevent normal body functions. Internal tumours rarely cause any clinical signs. The most common clinical problem is extensive involvement of the anus and tail-base that ultimately may prevent normal passage of faeces. Cases with extensive peri-anal involvement often have to be euthanased eventually. Thankfully progression is usually slow over many years. Tumours around the parotid salivary glands may interfere with tack as they become larger. If tumours become ulcerated they can become infected and painful.

Disease Control and Prevention
There are no specific steps that can be taken to prevent the condition. Owners should accept that most grey horses will develop the condition by their late teens. The unpredictable nature of tumour growth makes it difficult to give specific recommendations related to the risks associated with purchasing a horse with melanomas. The decision on when to treat is also based on opinion rather than science.

Summary of Key Learning Points
- Melanomas are a common tumour of older grey horses
- Their progression is unpredictable
- They will spread to internal organs but this rarely causes clinical problems
- Surgery with freezing is the mainstay of treatment
- The decision on when to treat is difficult. Surgery may increase the risk of re-growth if it is incomplete but if delayed it is less likely to be successful
- Medical therapy with cimetidine is unlikely to be effective

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