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Implications of Melanoma in the Pre-Purchase Examination

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The biologic behavior of equine melanoma can range from localized, small, and non-invasive to metastatic, proliferative, and catastrophically invasive. Therefore, it is important during the pre-purchase examination to note and accurately record the presence of any tumor suspected as melanoma, capture its current status photographically, and clearly communicate to the potential buyer that its future implications, although unpredictable, can be serious. Author’s address: Werner Equine LLC, 20 Godard Road, Box 5, North Granby, CT 06060–1400; e-mail: hwwvmd@wernerequine.com. © 2013 AAEP.

1. Introduction
The following case report regards an adult gray gelding seen for pre-purchase examination. A single, small melanoma was identified on the sheath (Fig. 1) and suspected as the cause of a swelling on the head. Two years later, the horse was euthanized as a consequence of terminal metastasis of melanoma. The initial recording and explanation of the implications of equine melanoma were recalled favorably by the owners at the time of euthanasia and were appreciated as helpful guidelines to them at the time of purchase.

2. Materials and Methods
A single case report with follow-up of 2 years after purchase is described. The pre-purchase examination was performed in a thorough, systematic manner with accurate recording, supportive imaging, and reporting to and interpretation for the buyer.

3. Case Reports
A 12-year-old gray Thoroughbred gelding (“Chaz”) was examined before purchase. At that time, the horse was in his eighth year of a successful career as a children’s show hunter. The examination findings were within normal limits, except for the following:

1. The presence of a 1-cm dermal swelling on the left sheath, typical in appearance of equine melanoma.
2. The presence of a several centimeter firm, subdermal mass at the left temporal region.

Neither lesion had any apparent functional significance at that time.

The potential buyers were informed that both lesions were probably melanomas and that although many melanomas will exist in status quo or very slow progression for years,¹,² three important facts must be realized:

1. The future biologic behavior of these melanomas was not predictable.
2. The potential existed for local multiplication and invasion, cosmetic deformity, and life-threatening metastasis.
3. No currently available medical or surgical therapy could be expected to be successful if treatment was attempted.¹,²
The written report to the buyers contained the following statements:

1. “Chaz was examined at rest and in motion in hand, on longe, and under saddle on the flat and over fences.”
2. “Chaz did not exhibit lameness, ataxia, abnormal respiratory sounds, or fatigue.”
3. “From examination of those organ systems made available to me for evaluation, I note the following:
   - A firm swelling (4 cm), deep to the skin, rostroventral to the base of the left ear.
   - A small melanoma (1 cm) at the left sheath.”
4. “I interpret these observations as follows:
   - The swelling below the left ear base does not involve the external ear canal and has no inflammatory component or external tract; it is clinically insignificant at this time.
   - Given the presence of an obvious melanoma on the sheath, it is reasonable to suspect the left facial swelling may be a melanoma as well.”
5. “While the biologic behavior of melanomas in horses can be limited to cosmetic blemish, a number of individuals will suffer extensive local tissue invasion and/or metastasis to vital structures.”
6. “It is not possible to predict the future behavior of this facial swelling.”

Fig. 1. Melanoma on sheath (1 cm).

Fig. 2. Suspected melanoma at left temple.
The buyers proceeded with the purchase, and the horse continued his successful career uneventfully for 2 more years. At that time, he began to exhibit intermittent, brief episodes of panic behavior. These would usually occur in the quiet of the barn aisle while in cross-ties and, less often, when walking in hand or under saddle. There were never any obvious inciting causes, and he returned quickly to normal when returned to his stall.

Although the external size and profile of the temporal mass had not changed since the pre-purchase examination (Fig. 2), diagnostic imaging was performed in an attempt to determine what role it might be playing in behavior episodes. Radiography proved inconclusive, but endoscopic examination of the guttural pouches revealed extensive infiltration of melanoma (Fig. 3). Finally, magnetic resonance imaging of the skull clearly showed infiltration of the temporal mass through the calvarium (Fig. 4) into the left temporal lobe of the brain (Fig. 5) as well as into the left middle ear. The owners elected to euthanize the horse before recovery from general anesthesia.

4. Discussion

This case emphasizes the importance of timely and thorough examination, documentation, and communication at the time of the pre-purchase examination as well as recognition of the troubling and unpredictable course that equine melanoma may take in the future.

In this case, both foci of melanoma were identified, archived photographically, documented, and reported to the potential buyer, and the nature of equine melanoma was explained—all before purchase. What the reaction of this buyer would have been 2 years later without such steps having been taken is unknown. However, given his daughter’s and her family’s strong emotional attachment to the horse and its considerable purchase price, the stage could easily have been set for an angry and shocked client. Such a circumstance frequently is damaging to an equine practitioner’s reputation as well as a risk factor for legal recourse.

5. Conclusions

Regarding the pre-purchase examination, a thorough and systematic approach, accurate and detailed recording, and understandable and relevant reporting...
and explanation to the potential buyer are essential to proper delivery of this professional service.\textsuperscript{3–5} 

Furthermore, recognize that equine melanoma is always a potential metastatic malignancy that will behave unpredictably. Avoid predicting its future or taking it for granted. Although there may be a tendency to dismiss one or a few solitary small melanomas at the time of the pre-purchase examination as of minimal or no long-term significance, especially in an otherwise excellent prospect, such an approach is both risky and medically untrue. This casual assessment can lead to serious repercussions in the future.

References