STANDARD OPERATING PROCEDURES - EQUINE
Application of a nose twitch

Category
Teaching: Categories 1, 2 and 3 (Instructor – student ratio 1:1)
Research: Categories 4, 5 and 6

Objective
To describe the safe technique for applying a nose twitch to a horse

A twitch is a device that is used to restrain horses for various stressful situations, such as veterinary treatment. It is usually made up of a stick-like handle loop of chain or rope on the end, or a metal ring with a rope loop which is wrapped around the upper lip of the horse and tightened. Another design, sometimes called a "humane" twitch, is a plier-like clamp that squeezes the lip with motion akin to that seen in a nutcracker. The aluminium screw twitch is yet another form of twitch.

Alternatives to animal use
There are no alternatives to animal use

Details of Procedure
• A nose twitch will sometimes be applied to perform minor procedures even in calm horses.
• If present, it is best to allow the owner or usual handler control the horse.
• Check for possible temperament problems or behavioural issues that may affect the handling of the horse.
• Ensure that the gear used to handle the horse is in good order and will fit the animal.
• Assess the environment for any hazards that may increase the risk of horses behaving unpredictably, such as wind, rain, insects, flapping objects, other animals, lack of other horses, changes in the environment, other horses in the immediate area etc.
• People handling horses should be aware of the signs of fear or alarm in horses (pawing, ears back, striking, turning their rear ends etc) and be prepared to avoid dangerous situations.
• Quiet, slow behaviour (gentle movements and no loud or sudden sounds) reduces the risk of fright and potential injury to both staff and animals.
• Visually assess the horses for behavioural issues (such as aggression towards other horses or humans, flightiness etc) and, if possible, obtain a history on the horses that you will be handling.
• Ensure the area is secure and/or the gate to the enclosure is closed before attempting to catch a horse.
• Approach horses quietly at the shoulder, use verbal cues and make sure that the horse is aware of your approach.
• Keep watch for other horses in the vicinity, in case they act aggressively towards yourself or the horse you are handling.
• Do not touch horses on any part of their body behind the shoulder when approaching, as horses may react by flinching or kicking out.
• When leading a horse, lead from the left or near side at about the level of the horse’s shoulder, holding the lead rope close to the horses head.
• When handling legs, always keep your body close to the horse, keep your head as clear as possible and keep watching the horse for signs of agitation or disturbance from an outside source.
• When walking behind and around horses, ensure they always know where you are, by keeping a hand on the horse’s body and speaking quietly at all times. It is safer to be close to the horse than a short distance away.
• Move around horses quietly and calmly, making no sudden or potentially frightening movements.
• Never hold the halter so that your hand could get caught if the horse pulls away or escapes
• Never loop the lead rope around any part of your body
• Never hold the lead at the end of the rope as the horse could take fright and possibly kick the handler
• Never approach the horse without alerting the horse to your position
• Never approach the horse directly from behind
• A twitch is an instrument used for the restraint of horses during various management, diagnostic, or therapeutic procedures.
• A twitch is applied to the upper lip and only tightened to a point that is necessary to achieve restraint.
• Excessive tightening is counter-productive and should be avoided.
• Handlers should always be prepared for a horse to react adversely to the application of a twitch.
• From the left side, place the loop of the twitch over the hand that is going to grasp the upper lip
• Grasp the upper lip of the horse and hold firmly, slide twitch over hand onto nose with other hand
• Tighten the loop by twisting the handle with your right hand until it settles the horse
• If a twitched horse rears or throws its head up when it is being handled or treated, the twitch will be dangerous if the handler loses his/her grip. Therefore a loop of the lead rope should always be placed around the twitch handle as an extra precaution.
• All staff and students should be familiar with the application and use of a twitch.
• Release the hold on the twitch and let it come loose, pull it off the nose when loose enough
• Ensure that the handler still hangs on to the horse by the lead rope

Drugs, chemicals or biological agents
In some situations horses will be sedated for invasive or painful procedures.

Standing sedation:
Xylazine at 0.4-0.6 mg/kg IV

Impact of procedure on wellbeing of animal or animals
Application of a twitch will always initially cause some apprehension and resistance by the horses, but once secured there is some evidence to suggest that the application of a nose twitch causes the release of endorphins and may bring about a state of euphoria or calmness(1).

Reuse and repeated use
Repeated use of the twitch on an individual horse will depend on the type of teaching exercise or research procedure

Care of animals during / after procedure(s)
Horses should be monitored very carefully for signs of resistance or distress when a twitch is applied. Some horses will react negatively and will throw their head violently, or strike out at the operator with a forelimb. In this case the twitch should be removed and not re-applied.
Horses recover their normal demeanor and state of well being quickly after a twitch has been removed.
Pain relief measures
In some cases the twitch will only or initially be used for restraint, and additional drugs will be used for alleviation or minimisation of pain.
Analgesic drugs in horses
Flunixin  1.1mg/kg IV
Phenybutazone  2.2-4.4mg/kg IV
Butorphenol  0.02-0.04mg/kg IV or IM
Lidocaine  2% solution to effect

Qualifications, experience or training necessary to perform this procedure
Demonstrator: Experienced horseman or woman, experienced equine veterinarian
Students: Only those that have had some prior experience with handling horses

References

The twitch in horses: a variant of acupuncture.
Lagerweij E, Nelis PC, Wiegant VM, van Ree JM.
Abstract
The twitch procedure in horses attenuates the increase in the heart rate evoked by pain-inducing stimuli and the reaction of the animals to such stimuli. Endorphin systems are probably involved in the effectiveness of the twitch, since its action is blocked by naloxone and its application increases plasma concentrations of immune-reactive beta-endorphin. The mode of action of the twitch cannot be explained by the generally accepted theory of divertive pain and may resemble that of classical acupuncture.