Equine Castration

A common and routine but significant operation

By Dr Euan Laidlaw, BVMS, MRCVS, Cheviot Vets, United Kingdom

Gelding; the fastest way to lose two stone that you, or indeed your colt, will never put back on!

The list of jokes associated with this common procedure is long and varies from a ’Dad-joke’ level to the utterly unprintable.

This being said, castration of the male horse is a significant operation and fraught with potential complications. In this article, Dr Euan Laidlaw from Cheviot Vets in the United Kingdom, will explain a bit more about what to expect from the event, which may be more than you are already aware of, how you can prepare and, thus, minimise complications, and how to recognise them if and when they occur.

Why put the fella through it?

While many stallions are pleasant animals to deal with on their own, when other horses are present either at home, at competitions or, indeed, when at a veterinary hospital, these gentlemen can turn into Saturday night lads on the town after 20 pints of cheap lager, with an overwhelming desire to fight with other males and fornicate with females. It is for this reason that most colts are ‘cut’.

To avoid any doubt, castration involves the permanent removal of both testes and, with this, the removal of all future breeding potential and masculine behaviour. This is different from a vasectomy, where the tube that carries sperm from the testicles to the end of the penis is cut. A vasectomy is, in theory, reversible and is very rarely performed in horses. Although not allowed in Thoroughbred racing, sports horse stallions can have their semen collected and stored for use after castration.

After a successful operation, fertility falls in a matter of days and their libido a week or two after. In rare cases, male behaviour does not subside; these animals are known as ‘false rigs’. Their actions can either be because their behaviour is set or they have some testosterone-producing tissue still present. The best way to ascertain this is with a test called an anti-müllerian hormone assay. It is possible for a horse to have three testicles - with the extra almost always in their abdomen.

Once you are decided

So, you’ve decided to have your colt cut. First thing’s first, before you call your vet, have a check to see if he has indeed got two testicles present. Most will be easily identified by the time he’s six months old. If they’re not there or, indeed, if you can find one but not the other, make sure your vet is made aware. Retained testicles (usually the left is left behind) should be removed, but the procedure can be more complicated and may necessitate travel to a hospital. Testicles are designed to live in a pouch of skin known as the scrotum and anyone male will know are very temperature sensitive. Up inside the body is too hot for them most of the time and hence retained testicles are at a much higher risk of becoming cancerous - best get them out.

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Whether you are taking your horse to a hospital to be gelded or having your vet come to you, there is a choice of two methods of restraint: heavy but standing sedation, or a general anesthetic. The different techniques can be categorised into open, closed and a halfway option. This description refers to a whether or not to tie closed the blood vessels that supply the testicles, and/or stitch the tunic or scrotum, one which is best left to your vet.

Regardless of the methods being carried out, your horse should receive a number of drugs before the operation:

- Anti-Tetanus cover. Tetanus is a bacterial infection of horses which is contracted from open wounds. This occurred.

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is often fatal. It can be effectively and cheaply prevented, either by having your horses vaccinated against it or by your vet giving it an antitoxin injection prior to the surgery.

- **Antibiotics.** I usually use high dose penicillin. Like humans, some horses have an allergy to this. Let your vet know if you’ve had problems in the past.
- **Pain killer/anti-inflammatory.** Like antibiotics, these are more effective when given before surgery. Personally, I give an injection of flunixin into the vein, then leave some bute powders or paste for owners to continue with.
- **Local anaesthetic.** This may be given into the testicles directly, the cords or both. Being male myself, I believe in minimising the pain of this procedure as much as possible!

All of this adds up to a lot of injections for a young animal. Whilst not always possible, it will make the event a lot easier and safer for all involved if your colt is well-handled before the operation.

He should also be clean and if you’re having him done at home he needs to be somewhere clean too. Have some buckets of tepid water and towels on hand if you can.

I will not go into detail regarding the surgery as such as there are so many variations, but the theme is constant. After administering the above, and cleaning the scrotum and surrounding area, your vet will identify a testicle, cut through the scrotum overlying it and remove it; followed swiftly by its neighbour.

**Post-op complications**

As previously mentioned, around 10% of all geldings will experience at least one post-op complication. Thankfully, most of these are minor, with the death rate being less than 1 in 300.

**Swelling**

By far the most common, especially in older animals, is swelling and fluid accumulation. This will happen in as

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Learning to recognise a ‘pain face’ can help owners and vet staff alike to provide appropriate treatment and pain relief.

A team of researchers from Denmark and Sweden showed that it is possible to identify a ‘pain face’ as a simple yes/no, and the intensity of five key facial expressions relate to the intensity of pain. The five key areas to watch out for are ears, eyes, nostrils, muzzle and facial muscles. To download the full version of the Pain Face poster, go to: [http://bit.ly/1MpHNkx](http://bit.ly/1MpHNkx).

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**Watch out for and call your vet if:**

- There is a stream of blood from the surgery site - which is too fast to count the drips
- You see something hanging out the wound
- Your horse is quiet or not eating
- After five days the swelling is not subsiding
- The wound hasn’t healed after three weeks
- Your horse still thinks he’s a stallion
- You’re worried!

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This month's contributor from Equine Dental VETS

Euan Laidlaw, BVMS, MRCVS

Originally from a farming background in Ayrshire, Scotland, Euan graduated from Glasgow University in 2011. After working at Ballarat, Victoria, he moved back to the United Kingdom in 2012 to work as an ambulatory large animal vet in Gloucestershire and Hexham, England. For the last year, he has worked at Cheviot Vets in Northumberland and the Scottish Borders, where he has a particular interest in equine dentistry. Outside of work, he enjoys country sports, skiing and is training for a triathlon.

To find out more, visit: www.cheviotvets.co.uk

Bleeding

Bleeding can be a problem in itself. As a rule of thumb, if you can count the drips then its okay. If you can't, call your vet! They will attempt to locate the source of the bleeding, which is usually the artery that used to supply the testicles. This can be tricky in a standing horse and they may advise you that a general anaesthetic is needed. Alternatively, they may pack the scrotum with some swabs and stitch it shut for a day or two.

Infection

Infection is also commonly seen. You might recognise this by your horse being exceptionally quiet or not eating. Both these are signs he may be suffering from a fever and your vet should be contacted without delay.

Scirrhous cord

You may have heard the term ‘scirrhous cord’. This refers specifically to an infection of the stumps left behind where the cords have been cut. There is some evidence to suggest this happens more often when the vessels to the testicles are tied-off; hence why your vet may be reluctant to do so.

‘Champignon’

This infection is caused by a particular bacteria known as Streptococcus. This once common complication is seen far less now that vets routinely use an instrument called an emasculator, which helps to control bleeding.

Openning the scrotum and removing the testicles creates a communication between the outside world and the abdomen and, with it, the possibility of eventration. This is potentially a very serious complication where some abdominal content escapes through the wound.

Most commonly, the offending viscera is a sheet of material called omentum. This looks like a net curtain and, if it is causing a problem, is surplus to your horse’s requirements and easily cut off by your vet. Much more serious is when a portion of intestine makes its way out.

If you suspect this, the best advice is to tie some clean bed linen around the problem and over your horse’s back, whilst informing your vet at once!

This should be of particular note to owners of Standardbred and Draught horses; breeds significantly over represented where this is concerned. While it has been reported a late as 12 days post-op, this usually happens within the first six hours, if at all.

If in any doubt, call your vet.

If you decide to go with a general anaesthetic, you and your vet also have a choice of method by which to perform the surgery. Whether it is open, closed or the halfway option, this is a decision which is best left to your vet.

Photos by Cristina Wilkins.