Penile fibropapillomas in breeding bulls

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There is some natural justice in this talk. I have been in mixed practice for 33 years and have dodged having to speak at any conference or seminar in that time. So having to front up after 33 years, it is probably only fair that I should be given the less than glamorous topic of “Penile Warts”.

I am in no way an authority on penile fibropapillomas in bulls and I am sure many in the audience will have seen more cases than I have and are better at treating them than I am. The reason I am up here talking on this subject is that having removed a large lesion from a sale bull, I sent it for histology to make sure it was just a fibropapilloma rather than anything more weird and wonderful. Fortunately histology confirmed it was a wart. Unfortunately someone at the lab thought it may make an interesting practitioner paper topic.

Penile warts, or fibropapillomas, in cattle are caused by the bovine papillomavirus but it’s a different strain to that which causes warts on other parts of the body. The warts develop following some damage to the penile skin allowing the virus to enter causing the fibroblasts to become neoplastic. I assume that the riding behaviour of yearling bulls as they become sexually active causes enough grazing and damage to the surface of the penis to allow the virus to penetrate.

Penile warts are similar to other types of warts on cattle in that they mainly affect young bulls and most of them fall off by themselves, some quite quickly and mostly they are gone within eight months of forming. If Bulls are seen to have small penile warts away from the breeding season I tend to leave them as they are usually self limiting.

They can however cause a few problems especially close to mating time.
1. They can cause pain during mating making the bull reluctant to serve
2. The wart can bleed during mating causing reduced conception rate because of the affect of the blood mixing with the semen.
3. If big enough the warts can prevent intromission or once the penis is out they can stop retraction of the penis which can then become damaged and necrotic.
4. Having penile warts can be an issue when the bull is sold.

We seem to go for seasons not seeing any penile warts, then for some reason a few studs have them the same year.

The wart that I sent for histology came from a yearling bull on an Angus stud in the autumn of 2013. A couple of years prior to that I had been called to the same stud to remove a large penile wart that had been noticed when the bull had semen collected. I sedated him with 4ml of 10mg/ml ACP in the tail vein and waited for the penis and wart to appear. To my relief all I could find was an obvious red mark on the penis where the wart had been. So this time when the owner called me out to look at four yearling bulls with penile warts I smugly thought as I was driving there that most of them would have fallen off by the time I got there and that this would be an easy job. I was wrong.

When I got there two of the bulls had large warts on the end of their penises stopping them retracting back into the prepuce. They were damaged, dirty and bleeding. After the ACP the worst of them revealed a wart the size of
a large egg with an attachment 2-3cm in length very close to the tip of the penis. A general anaesthetic would have been helpful in hindsight but I have always just sedated the bulls with ACP to drop the penis out and try to get some local in while the bull is restrained in a good crush.

I always have trouble getting local anaesthetic under the wart as the penile tissue is so firm. Luckily one of our younger Vets had come for a look so she was able to hold the penis with some gauze while I attacked the wart. It was a case of snipping away with scissors and forlornly trying to clamp off the many bleeders until it was off. Then with some vicryl and a swaged on needle, I tried to pull the wound edges together. This was only partly possible and I couldn’t tie off all the bleeders either. He wandered out minus the wart and still bleeding quite a lot but this soon stopped. The second bull with the large wart was a similar battle. The other two had smaller multiple warts that I was able to cut off with sharp curved scissors without stitching.

Some photos would have been nice but a lot of things are good in hindsight! I have been hoping to get some more this autumn to get photos but as Murphy’s Law would have it, there haven’t been any. I am keen to hear how other Vets deal with these cases. I look at the text books and see the pictures of an anesthetized bull with a draped up penis and think maybe next time I’ll do it that way but I never do.