Did I do that?

Rider Influenced Foot Development

In my previous practice, I had a client in New York in which I cared for their twelve horses. I had been caring for these horses for several months, when I experienced a revelation.
Let me begin by saying that I had been fortunate to be following up on a very talented DAEP; the horses had very few issues. Nearly all the horses were doing well.
It should be noted that it was the middle of winter when I took over the farm, and that the horses were not in training. The spring show season was quickly approaching, and the horses had been in training for about 8 weeks.
Here is what happened.
I began work on the first horse, and upon completing a spectrum of usability, I made note of a lateral (outside) mechanical/metabolic flare in the right hind foot, and slightly under run lateral heel. Flare is a bending of the wall. In addition, I noted that both hind toes were a bit dubbed (being worn off), with the right hind having its breakover slightly more lateral than the left hind.
After discussing the dubbing with the trainer, it was determined that dubbing was in fact less severe than it had been on my last visit. The trainer felt that the horses were working better, and as a result had more suspension to their gaits with less dubbing of their toes.
I proceeded on the second horse of the day, and upon completing a Spectrum of Usability, I found myself making note of a *lateral mechanical/metabolic flare* to the right hind foot, and a slightly under run lateral heel. Once again, there was some dubbing evidenced, but again less than noted on my previous visit. Again, the breakover on the right hind was slightly lateral when compared to the left hind. OK, one horse, two horses interesting, but not improbable. It did peak my interest just the same.
The third horse, a Dutch Warmblood in training just like the previous two, and just like the previous two horses there was *lateral mechanical/metabolic flare* in the right hind foot, and a slightly under run lateral heel. I can accept one horse, even two horses, but not three. There was something going on here that warranted further investigation. Even though I had done a gait review of each horse prior to trimming them, I wanted to take a closer look.
I had each horse worked in hand in the indoor school. I noted that each horse platted with the right hind foot (tracked towards the opposite fore foot) when asked to work clock wise. The inside foot should follow a track that places it slightly closer to the horse's center line, but it should not pass over the center line. In those horses that are tracking correctly, the flight arc of each hind foot will be the same. It should be noted that there was no sign of lameness, but they were showing definite signs of asymmetrical muscle development.
I continued to work through seven horses that day, completing spectrums for each. It was noted that each horse that was currently in training showed some sign of asymmetrical development behind.
I hypothesized that the changes in the right hind foot of each horse was the result of rider influence. I had a talk with the trainer and discovered that all of the horses showing changes to the right hind foot were being ridden by the same person. I was also informed that the rider had a history of injury that may have had an effect on their own balance.
I asked the rider to exercise each horse, while I took note of how each tracked up behind. Each horse was worked in a large figure eight. Every horse exercised showed platting of the right hind when asked to go clock wise, but showed no tendency to plat when asked to go counter clock wise.

Above photograph shows right hind platting.

I then asked the rider to apply mild pressure to their left leg when asking the horse to circle to the right. I was basically asking them to bend the horse a bit less. The result was that the horse tracked up straighter with the right hind (inside hind). The change was so noticeable that it could be measured. The change in foot placement was nearly four inches. Yet the rider felt that the horse was actually executing the bend more smoothly.
Apparently what had happened was that the rider had developed a habit of allowing the horse to bulge through its left rib cage while tracking clock wise. This in turn caused the right hind to follow a line that placed the foot far past the center line of the horse. With each stride, excess pressure was being applied to the lateral heel of the right hind foot. With a little investigation we believed that we had discovered the cause, allowing us to come up with a game plan that would help to alleviate the problem.

The Plan.
The rider would work to maintain balance when asking the horse to bend to the right. She would continue to develop techniques to improve the way she asks for the bend. She would be utilizing slow motion video to review her progress. She had contacted her

saddle fitter to evaluate saddle fit, and would work with her physical therapist to help her develop better muscle symmetry in her own frame.
This experience made it very clear that rider influence has an enormous influence on foot development. Remembering that heel conformation is related directly to cartilage development, and that cartilage development is directly related to pressure. Changes to cartilage resulting from incorrect pressure, result in the poor development of the heels. There is only so much we can do with a trim. Once we have achieved balance to the Internal Arch Apparatus (internal structures of the foot), it is our responsibility to determine what needs to be done to aid the horse in maintaining or returning health to the foot, via the appropriate amount of correct pressure. Watch your horses closely, and don't overlook rider influence on foot development.

Above photograph shows before (May) and after (August). Note how toe off has improved.

Follow up:
The horses described in this article were on a four week trimming cycle. Follow up visits showed that the rider's efforts had been rewarded. After completing a Spectrum of Usability (foot evaluation) on each horse in question, it was confirmed that no flares were in evidence.
The horses are now under the care of two exceptionally talented DAEP's, and all three horses are now competing at FEI 4th level dressage and doing very well.