Report from the Veterinary examinations at LM 2011

"Fit for competition test"

To ensure that only healthy horses in good physical condition are used for competition, a standard veterinary test has been developed by The Icelandic Veterinary Authorities (MAST) in collaboration with the Icelandic Equestrian Association (LH).
This test has been applied at all greater national horse tournaments since 2002.

Fit for competition test

All horses competing in "gæðingakeppni", A and B classes, toelt, pace and "young riders" have to pass the "Fit for competition test" before entering the track.

The test is carried out 2 - 24 hours prior to each preliminary event and one to two hours before semi finals and finals.

The responsible veterinarian at each tournament supervises the veterinary control as well as the competition. He or she is to be referred to in all cases where there is a doubt as to whether a horse is fit for competition and can be consulted by judges whenever the need arises.

The veterinary test includes:
General status (body condition score (BCS), lymph nodes, breathing as well as heart sounds and temperature, if indicated)
Limb palpation and movement examination (for walk and trot on a hard surface).
Oral examination (rostral part of the mouth, without sedation)

Injuries are classified into three categories based on severity

1st degree: Annotation

Small and/or superficial lesions in the mucosa of the mouth. Thickening/oedema of the mucosa of the bars. Mild swellings in joints and tendon sheets.

2nd degree: Notification, probably with a conditional permission to compete
(i.e. change of bit/bridle or re-shoeing)

Deeper and/or more extensive lesions in the mucosa of the mouth. Mild signs of periostitis and/or small lesions in the mucosa of the bars. Superficial injuries on the limbs (skin injuries caused by over reach). Prominent swellings in joints and tendon sheets or mild inflammation in tendons without lameness.

3rd degree: The horse is declared unfit for competition and is not allowed to enter the track.

Poor nutritional status (BCS below 2,5), fever, abnormal breathing or heart sounds, swollen lymph nodes, coughing.
Lameness, acute inflammation of tendons or joints, deeper wounds, sore hooves.
Extended, deep injuries in the mouth.
Other painful conditions or injuries

A horse that has been declared unfit for competition in one event is not allowed to participate in any other event at the same tournament.

The local vets at Skagafjordur performed the "it for competition test" at LM 2011 together with the Veterinary Officer for Horse Diseases who was the veterinarian in charge at the tournament. The District Veterinarian was also represented.

Results

In total, 335 horses competing in "gæðingakeppi", A and B classes, toelt, pace and "young riders", were examined. They were presented with a halter before preliminary competitions as well as all semi finals and finals. Selected groups of the horses were also examined after competition.

General status

No remarks

Mouth

Number of horses identified with lesions. Degree of severity (1,2,3):

	Prelim. events	Additional cases in the finals	In total	Mucosa 1,2,3	Bars 1,2,3	War-ning	Change of bit	Unfit for compet.
Young riders	24/74 32%	5+ 4 ↑severity	29/74 38%	15,7,0 =22(30%)	8,6,0 =14 (19%)	11 (15%)	2	0
B-Class	45/104 43%	3+ 1 ↑severity	48/104 46%	21,6,0 =28(27%)	13,5,1 =19 (18%)	10 (10%)	2	1
A-Class	32/87 37%	5+ 1 ↑severity	37/87 43%	19,12,0 =31(36%)	9,2,0 =11 (13%)	13 (15%)	1	0
Toelt	9/27 33%	1 ↑severity	9/27 33%	5,1,0 =6 (22%)	1,2,0 =3 (11%)	3 (11%)	0	0
Pace 250	1/12 8%	1+ 1 ↑severity	2/12 17%	0,1,0 =1	1,0,0 =1	1 (8%)	0	0
Pace 150	1/13 8%	1	2/13 15%	0,2,0 =2	0	2 (15%)	0	0
Pace 100	3/18 17%		3/18 17%	1,0,0 =1	0,2,0 =2	2(11%)	0	0
In total	115/335 34%		130/335 39%	91/130 70% 91/335 27%	50/130 38% 50/ 335 15%	42/335 13%	5	1

Limbs

Number of remarks/ horses identified with lesions:

	Filling of past. joint(s)	Filling of tendon sheet(s)	Thicke-ning of suspen-sory lig.	Thicke-ning of tendons	Perio-stitis	Injury (skin)	Sore hoof	Lame-ness	War-ning	Unfit for comp.
Young riders	3	3	3			2	1	1 (+4?)	4	1
B-Class	1	2	3	1	1	2		(1?)	1	
A-Class	2	3		1	1	5		1 (+3?)	3	1
Toelt	1								0	
Pace 250						1		(1?)	1	
Pace 150		1	1					(1?)	1	
Pace 100						2			0	
In total	7	9	7	2	2	12	1	2 (+10?)	10	2

Injury control following B-Class preliminaries

One minor limb injury caused by over reach

No horse with blood in the mouth

Injury control following A-Class semi finals

Eigth horses with limb injuries caused by over reach, seven of those on the elbow

8/29 =28%

7/29 = 24%

No horse showed blood in the mouth

Injury control following pace preliminaries

One minor limb injury caused by over reach

No horse showed blood in the mouth

Discussion

At LM 2011, more extensive mouth control was applied to competing horses than at any previous tournament. This procedure revealed inflammation and/or lacerations on the bars of 51 horses (15%). In 17 of those horses the injuries were rated as 2nd degree . One horse had a 3rd degree injury and was consequently not allowed to enter the track. These injuries were in addition to pressure wounds in the soft tissue (mucosa) found adjacent to the first premolars and at the corner of the mouth in 90 horses (27%). Those were regarded to be of 1st degree in 60 cases and of 2nd degree in the remaining 31 horses (34%).

Injuries on the bars ranged from thickening of the mucosa to prominant periostitis and open wounds. The riders were generally not aware of the injuries. Interviews revealed that all of them had used curb bits with a port (un-jointed , single jointed or double jointed with a ported link) in training and/or in competition during the last mounth. They had, however, not necessarily planned to use that equipment at LM 2011.

The tounge is a strong muscle which in spite of it‘s sensitivity has the capability to resist fairly high pressure from the bit. When using bits with a port, the the tounge is out of this function and the pressure is transferred to the bars.

The bone at the bars is covered with the very sensitive periost and thin mucosa which has limited ability to resist the pressure from the bit. Consequently this can easily result in inflammation and lacerations, possibly followed by ossification and permanent damage. In extreme cases, open wounds can predispose the jaw to serious infections. From the point of view of animal welfare, prevention of these injuries is therefore very important.

Bits with a port, curb bits in particular, should be used carefully. It is important for the rider to understand their biological effect and they should only be used on very well trained horses. Such bits should never be used to solve other problems or as a shortcut in the training programme.

The lesions of the soft tissue were characterised by thickening of the mucosa and pressure wounds. Most of them were rather mild and/or superficial (1st degree) but 29 horses showed more serious conditions (2nd degree). Constant pressure of the mucosa between the bridles and the teeth leeds to decreased blood flow and results in pressure wounds. Thickening of the mucosa reflects the body‘s attempt to heal. Acute lacerations in the mouth were rare and none horse retested after competition showed blood in the mouth

Eleven horses had injuries both on the bars and the soft tissue.

It is concluded that injuries in the mouth are a considerable ploblem in Icelandic competition horses. The riders need to reconsider how much and/or extended bit-pressure to apply. Furthermore, they have to avoid pressing the bits against hard tissues, i.e. bones and teeth, and take care not always to put it on the same spot. Thus the selection of bit and bridle can be of vital importance. In the case of serious injuries (2nd and 3rd degree) the mouth of the horse should be examined more thoroughly, in search for potential underlying causes.

Two horses were not allowed to enter the track due to lameness and another 10 horses, having received milder notifications from their motion evaluation, were allowed to compete but with icreased supervision.

Limb injuries caused by over reach were rarely to be seen. An exception was the frequency of elbow injuries noted in the A-class competition. In the test following the semi-finals in that category, elbow injuries were identified in seven out of the 29 horses. This amounts to a frequency of 24% which must be regarded as a matter of concern. Most of those injuries were superficial and did not seem to be painful or sore although bleeding in some cases. In one case re-shoeing was requested.

Injuries of the elbows are caused by the interaction of various factors. The extreme movements achieved by breeding and training, increased by long hoofs and probably the track’s hard surface can result in the hoof cutting the skin above the elbow. The easiest factor to improve or change at the track

is the hoof-length, which strongly effects the horse's leg movements. Shortening the hooves is therefore requested if the horse is to carry on competing. Other possible measures might include shortening the shoes and the use of lighter boots.

Demanding maximum results (i.e. regarding speed, action and form) from horses in competition can easely cross the limits of their physical health and conflict their welfare. This must be borne in mind in any further development of competitions for the Icelandic horse.

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