Clinical Findings in Horses affected with Tendinopathies and Associated Soft Tissue Injuries of Various Joints, from Lahore, Pakistan

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Objectives

To precisely Diagnose & Evaluate

- Clinical Findings
- Ultrasonography

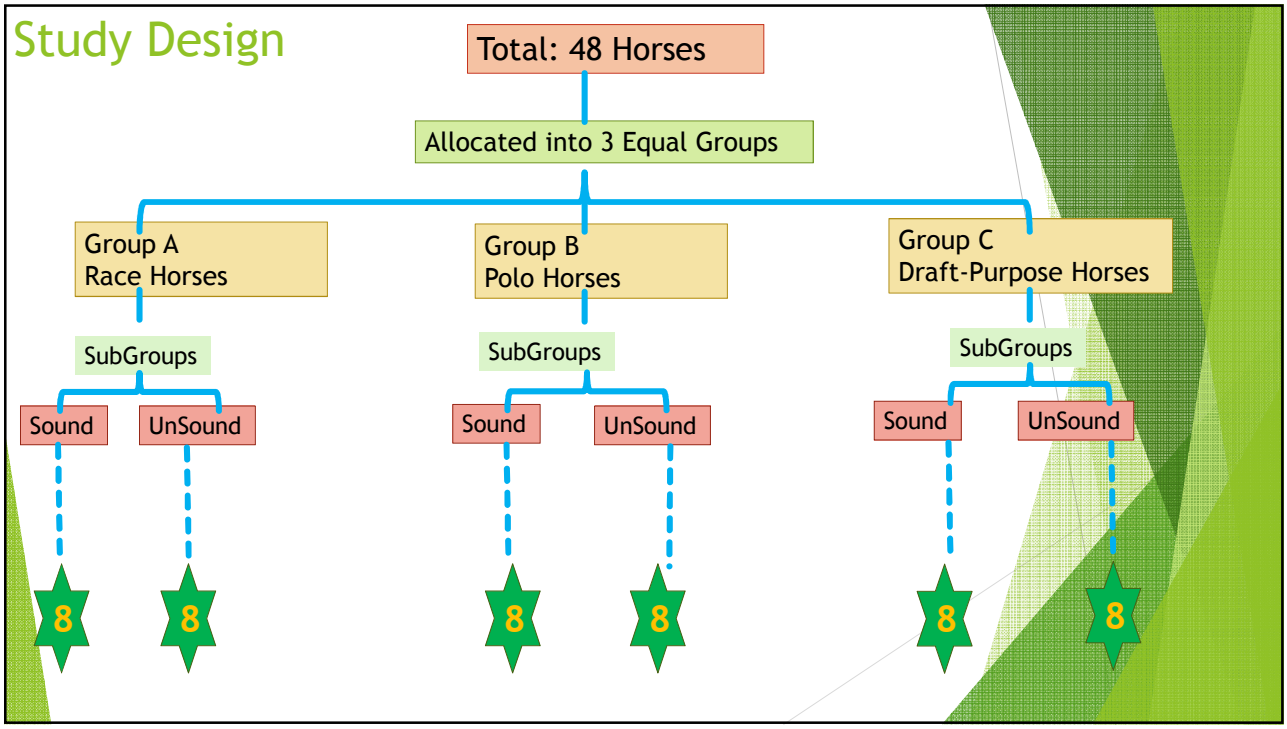
- percentage of occurrence, &
- severity of injuries

to

- Flexor tendons and
- other soft tissue structures (in various joints of horses),

Area of Study:

In and around the Lahore city in Pakistan.



Structures Examined:

Joints;

Soft Tissue Structures;

Flexor Tendons

GROUPS	Fore limb joints		Hind limb joints	
	Sound	**Unsound**	**Sound**	**Unsound**
A: RACE HORSES	**Elbow**	**Elbow**	**Stifle**	**Stifle**
	Triceps tendon.	Triceps tendon.	Middle Patellar Ligament	Middle Patellar Ligament
B: POLO HORSES	Lateral Collateral Ligament (LCL).	Lateral Collateral Ligament (LCL)		
	Carpus	**Carpus**	**Hock**	**Hock**
C: DRAFT-PURPOSE HORSES	External carpi Radialis tendon (ECR)	External carpi Radialis Tendon (ECR)	Long Digital Extensor (LDE) Tendon.	Long Digital Extensor (LDE) Tendon.
	Tendon sheath	Tendon sheath	Peroneus Tertius tendon	Peroneus Tertius Tendon
	Carpal joint Capsule	Carpal joint Capsule		
	Fetlock	**Fetlock**	**Fetlock**	**Fetlock**
	Collateral Ligaments	Collateral Ligaments	Collateral Ligaments	Collateral Ligaments
	Common Digital Extensor tendon	Common Digital Extensor tendon	Long Digital Extensor tendo	Long Digital Extensor tendo

Clinical Parameters Assessed

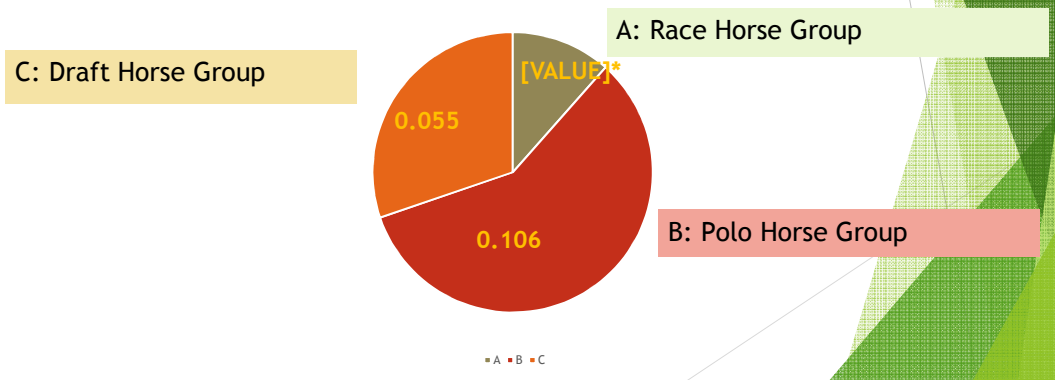
- Warmth
- Swelling
- Degree of pain
- Degree of Lameness
- Range of Motion.

Results

I) Warmth

- Warmth was observed in 50% of cases in all the three groups i.e. race, polo and draft. Warmth of the encountered region is not directly proportional to the presence of injury but dependent on the acuteness of the injury. Race horses were more affected with a P value of ***P≤0.021*** showing marked significance.

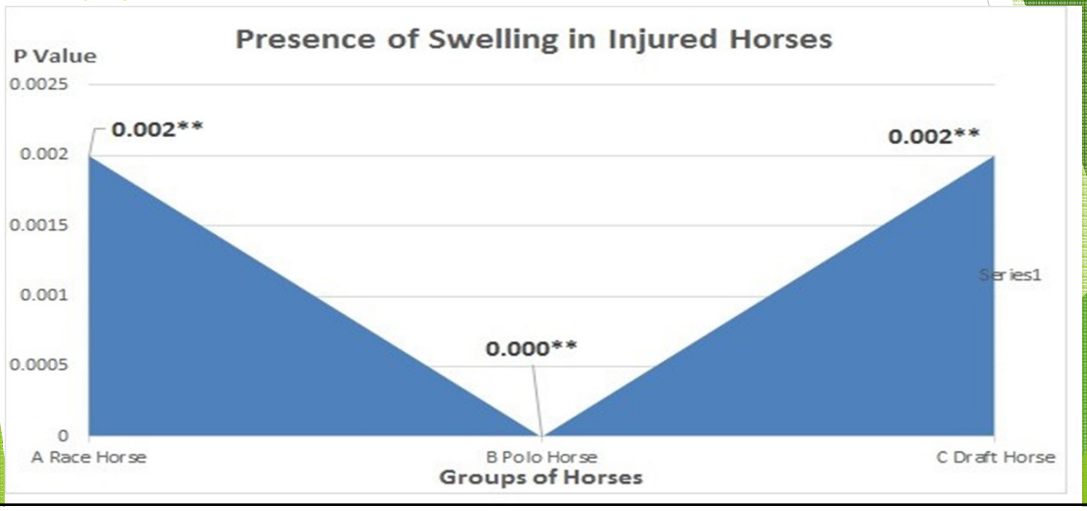
Presence of Warmth in Affected Horses- Chi-Square Test Results



Results

II) Swelling

- Presence of swelling in response to injury were 100% in all groups, i.e. Race, Polo and Draft purpose horses. The P values were ***P≤0.002*** for both Race and Draft purpose Horses, and ***P≤0.000*** for Polo horses, respectively, showing a very high significance for Polo horses and subsequently for Race and Draft-purpose horses.









Results

III) Degree of Pain

Grade	Severity of Pain
0	No pain (sound)
1	Mild
2	Moderate
3	Severe

Score-chart for pain evaluation

Degree of pain	No. of Sound Horses	No. of Unsound Horses			Total No. of Unsound Horses	P Value
		Mild Pain	Moderate Pain	Severe Pain		
Race	8	2	4	2	8	**0.001****
Polo	8	2	3	3	8	**0.001****
Draft	8	3	4	1	8	**0.001****

No. of Horses Depicting Pain Scores

Results

IV) Degree of Lameness

Degree of Lameness	Clinical Findings
1st	Mild (limping)
2nd	Obvious (toe touching)
3rd	Marked (toe / foot dragging)
4th	3 legged (weight of the animal borne by 3 legs)

Score chart representing Degree of lameness

Results

IV) Degree of Lameness

Degree of Lameness	Sound Horses	No. of Unsound Horses				Total No. of Lame Horses	P Value
		Mild L/ness	Moderate Lameness	Obvious Lameness	3-Legged Lameness		
Race	8	3	2	2	1	8	**0.003****
Polo	8	3	1	3	1	8	**0.003****
Draft	8	4	1	2	1	8	**0.003****

No. of Horses Depicting Various Grades of Lameness

Results

V) Range of Motion

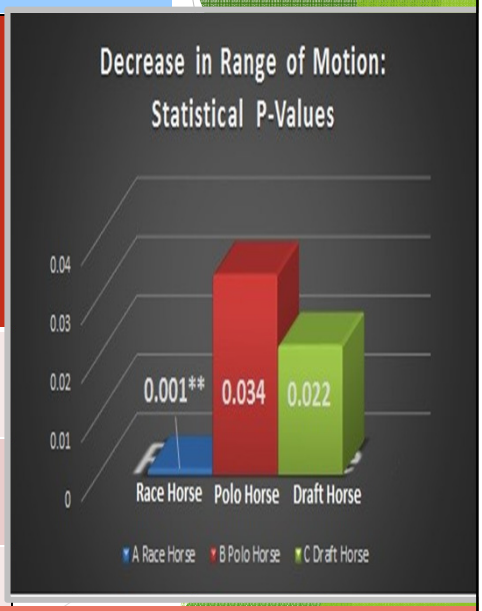
Grade	Range of motion
0	Normal / sound joint with 100 % normal flexion and extension
1	50% decrease in flexion and extension
2	75% decrease in flexion and extension
3	100% decrease in flexion and extension

Score chart representing Range of Motion.

Results

V) Range of Motion

Degree of Lameness	Total No. of Sound Horses	No. of Unsound Horses			Total No. of Unsound Horses
		~50% ↓ range of motion	~ 75% ↓ range of motion	100% unsound (no motion)	
Race	8	3	2	2	8
Polo	8	3	1	3	8
Draft	8	4	1	2	8

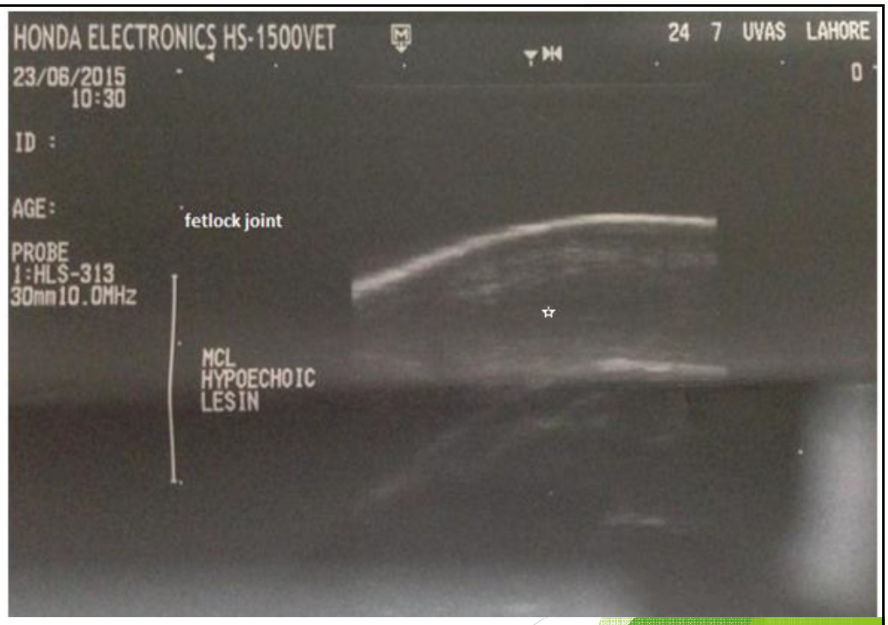


No. of Horses in Various Groups Depicting Decreased Range of Motion in Joints



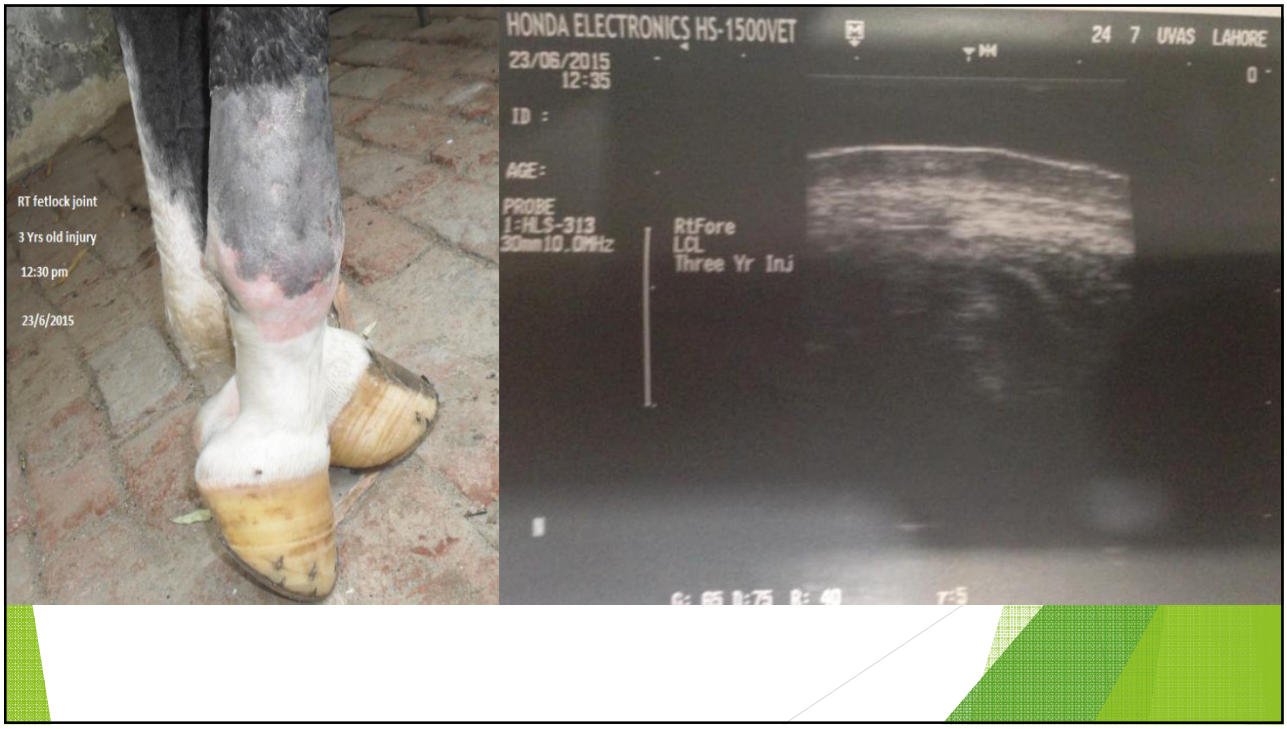



Left fetlock (forelimb)
race club
10:23 am
23/6/2015

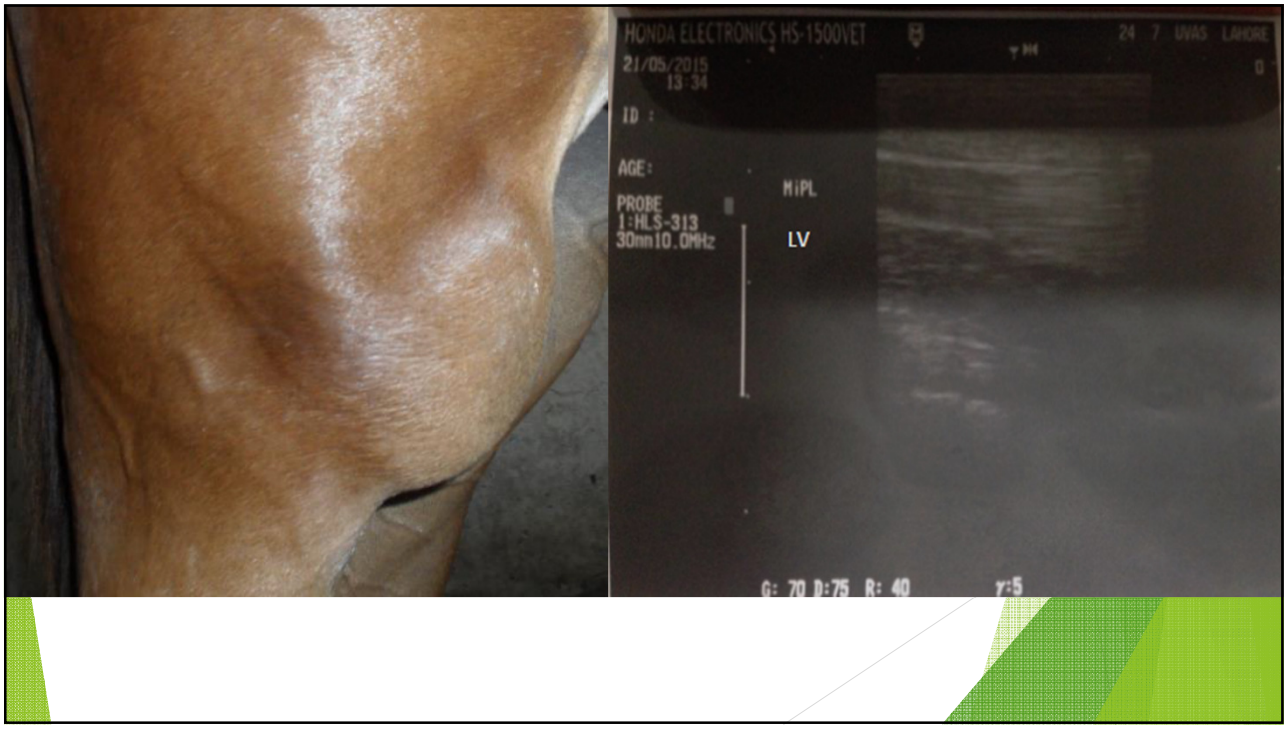

HONDA ELECTRONICS HS-1500VET
24 7 UVAS LAHORE
23/06/2015
10:30
ID :
AGE:
fetlock joint
PROBE
1:HLS-313
30mm10.0MHz
MCL
HYPOECHOIC
LESIN


23/6/2015
12:30 pm
RT Fetlock joint


HONDA ELECTRONICS HS-1500VET
24 7 UVAS LAHORE
23/06/2015
1 :59
ID :
AGE:
PROBE
1:HLS-313
30mm10.0MHz
RT FORE
FET FIVE
MTH INJ
LCL COARSE
FIBRE H ECH


RT fetlock joint
3 Yrs old injury
12:30 pm
23/6/2015
HONDA ELECTRONICS HS-1500VET
23/06/2015
12:35
ID :
AGE:
PROBE
1:HLS-313
30mm 10.0MHz
RtFore
LCL
Three Yr Inj
24 7 UVAS LAHORE

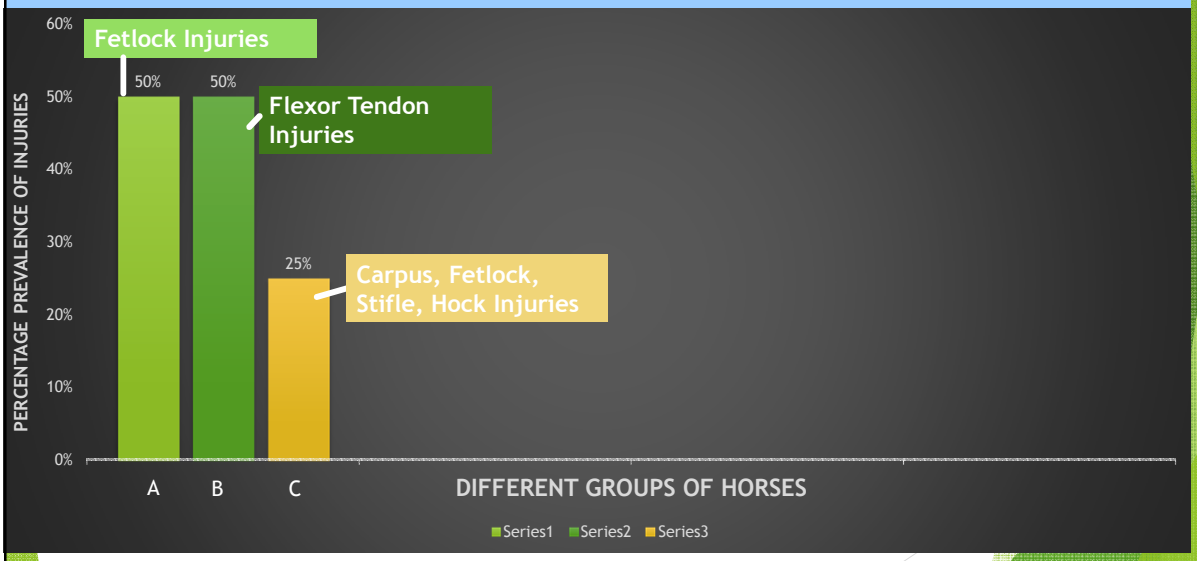

HONDA ELECTRONICS HS-1500VET
21/05/2015
13:21
ID :
AGE :
PROBE
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30mm 10.0MHz
Stifle jt
haematoma
24 7 UVAS LAHORE



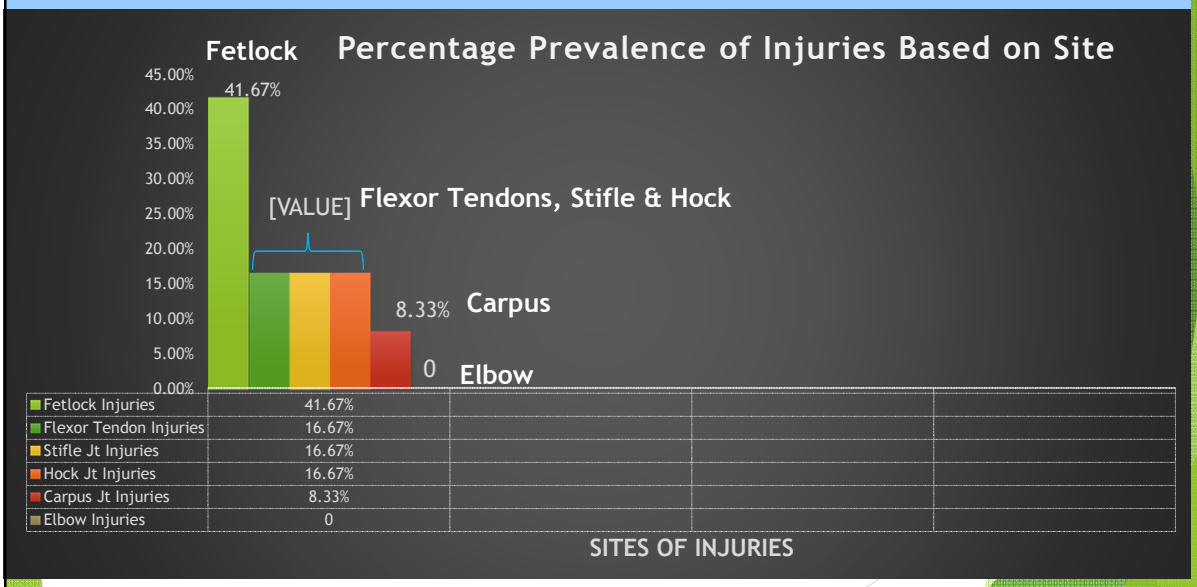
Statistical Analysis of Various Clinical Parameters

Group	A (Race Horses)	B (Polo Horses)	C (Draft-Purpose Horses)
Parameters	P values		
Warmth	0.021*	0.106	0.055
Swelling	0.002**	0.000**	0.002**
Degree of pain	0.001**	0.001**	0.001**
Degree of lameness	0.003**	0.003**	0.003**
Range of motion	0.001**	0.034*	0.022*

Percentage Prevalence of Injuries in Different Groups



Percentage Prevalence of Injuries in Different Groups




THANK YOU