

Table of contents

1. Introduction.....	1
1.1. Equine hyperinsulinemia	1
1.2. Insulin-associated laminitis	3
1.3. Metabolic profile associated with insulin dysregulation.....	4
1.3.1. Previously described alterations of the metabolism.....	4
1.3.2. Technical aspects	5
1.4. Diagnosing insulin dysregulation.....	6
1.4.1. Basal testing	6
1.4.2. Detecting insulin resistance	6
1.4.3. The advantages of oral testing protocols	7
1.5. Treating insulin dysregulation	7
1.5.1. Current recommendations	7
1.5.2. Pharmacological treatment.....	8
1.6. Hypotheses (H), aims (A) and objectives (O).....	8
2. Manuscript 1.....	11
3. Manuscript 2	25
4. Manuscript 3.....	35
5. Manuscript 4.....	57
6. General discussion	71
6.1. Potential biomarkers of insulin dysregulation and laminitis.....	71
6.2. The oral glucose test as hyperinsulinemia model.....	73
6.3. Insulin dysregulation in the context of the equine metabolic syndrome.....	74
6.4. Pathological processes potentially associated with insulin dysregulation	76
6.5. Future perspectives	77
7. Conclusion.....	79
8. References.....	81