

Behavior of nursery pigs with and without gastric ulcers

Juan Miguel Peralvo Vidal
PhD-Student

juan.peralvo.vidal@sund.ku.dk
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KØBENHAVNS UNIVERSITET



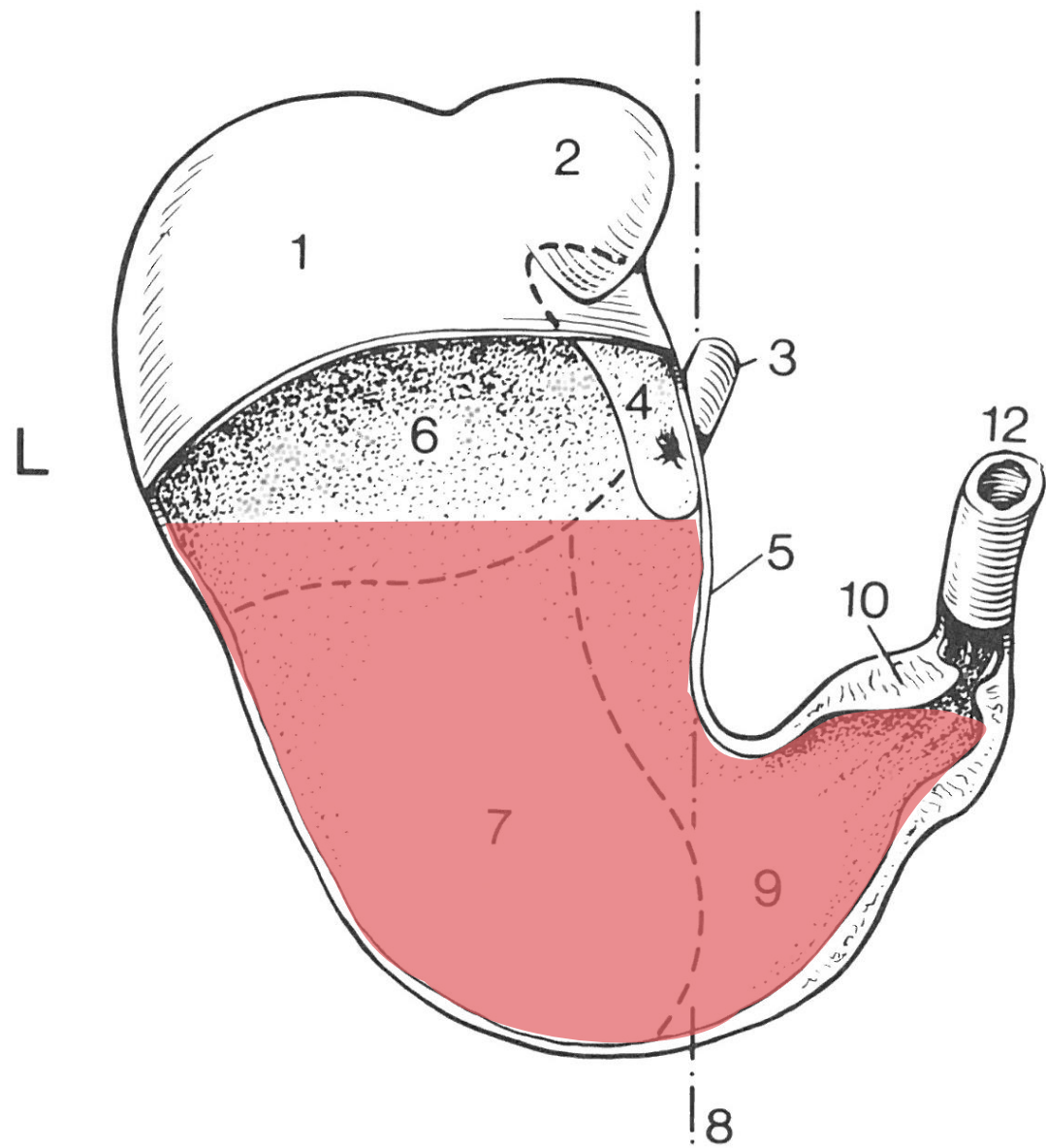
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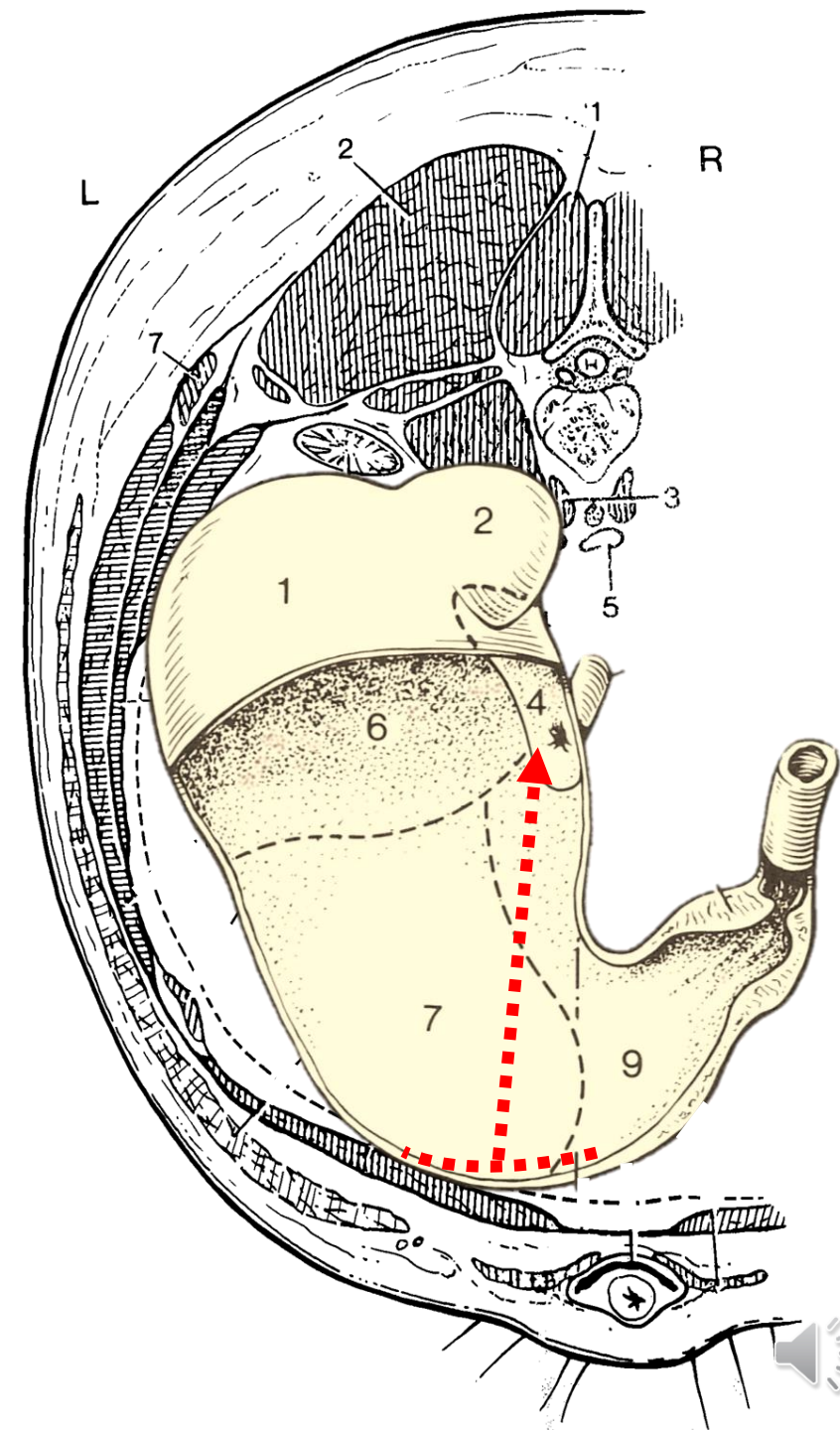
AGENDA FOR TODAY

1. What is gastric ulceration (GU)?
2. Hypothesis and objective
3. Methods
4. Results
5. Conclusion





R



HYPOTHESIS

Nursery pigs with gastric ulcers have a different feeding behavior than healthy nursery pigs



OBJECTIVE

Identify differences in the diurnal feeding behavior of nursery pigs with and without gastric ulcers under commercial conditions.



Measurements:

1. Feeding time per visit to the feeder
Minutes / Visit
2. Total feeding time per day
Minutes / Day
3. Number of feeding visits per day
Visits / Day



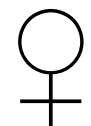


METHODS



Initial selection
at birth = 275

Final sampling
6 weeks after
weaning = 200



Weaning



Week 5
Star video
Recording



Week 6
End video
recording



LACTATION

NURSERY

Diurnal behavioral assessment

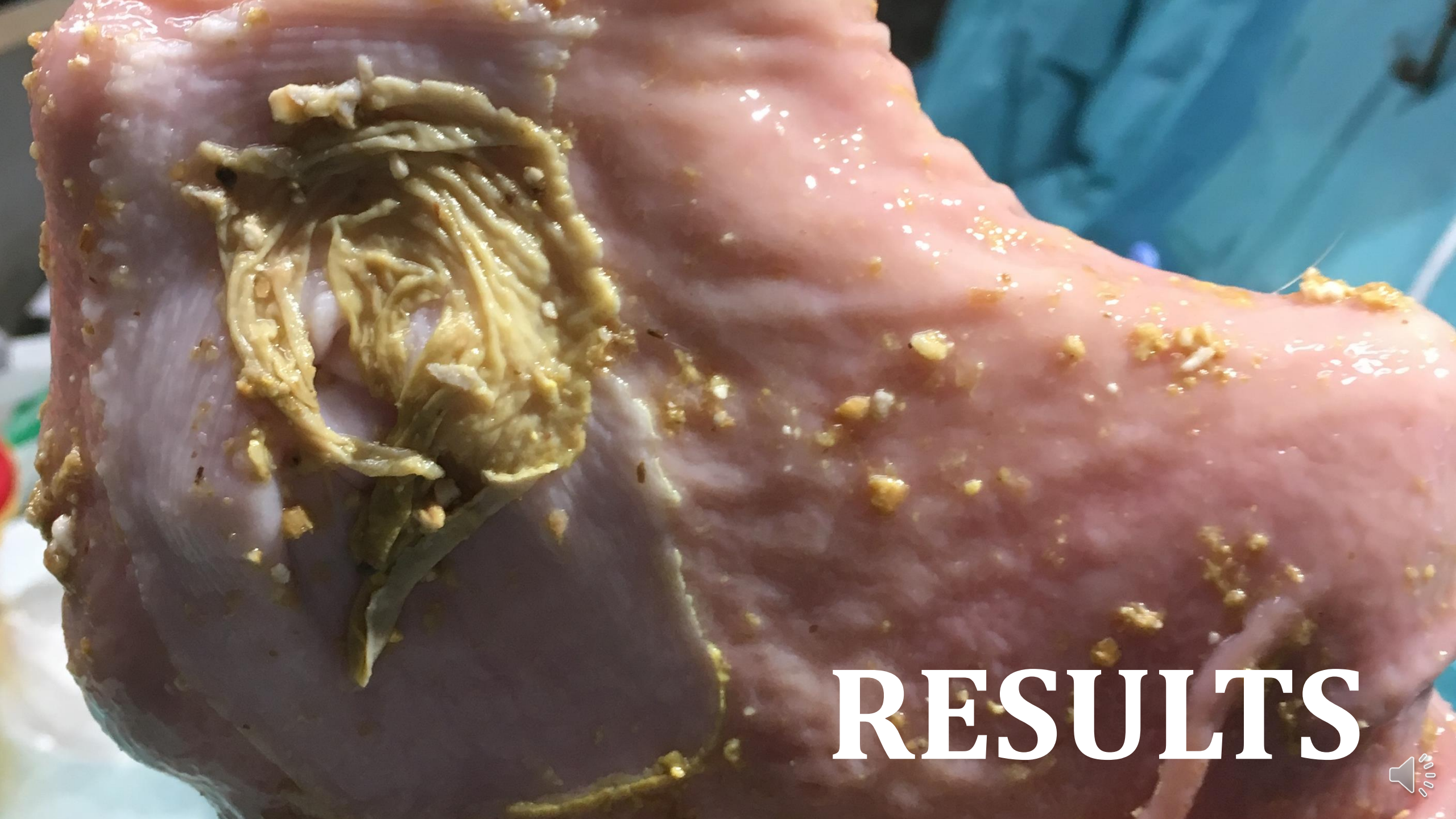
- 30 nursery pigs
(15 healthy + 15 ulcers)
- From 06:00 to 22:00 with permanent light access
- 31 nursery pig / pen





3360 h





RESULTS



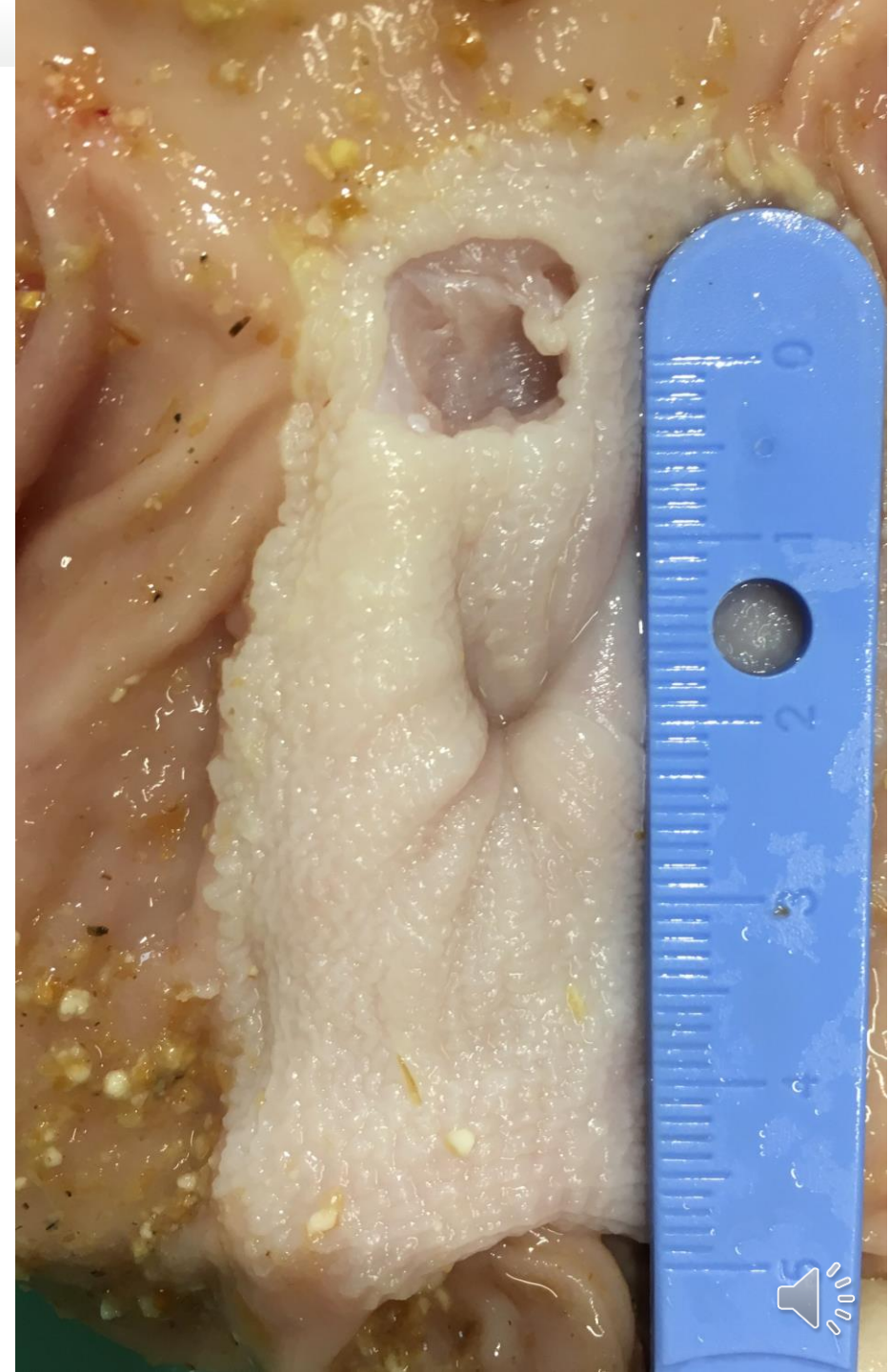
Gastric health assessment:

	No gastric lesions		Gastric lesions				Total
	Healthy	Parakeratosis	Erosion	Scar	Severe ulcers		
					Ulcer	Oesophageal Stenosis	
No. of nursery pigs	2	30	83	7	53	24	199
%	1	15.1	41.7	3.5	26.6	12.1	100
Total (%)	32 (16)		167 (84)				-



15 Healthy (Score 0 - 2)

ID Pig	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Total Observations
13	22	14	15	16	14	13	17	111
21	27	21	19	13	12	23	25	140
77	15	15	17	11	13	9	17	97
108	12	10	12	14	15	12	14	89
131	17	16	9	19	15	13	11	100
132	17	18	17	16	22	14	13	117
164	10	14	13	15	12	10	13	87
185	15	12	14	13	17	9	8	88
207			13	13	13	8	12	59
218	15	17	11	15	23	16	14	111
220	12	13	14	8	13	12	12	84
238	13	21	19	15	19	23	20	130
243	8	17	13	10	12	12	7	79
252	13	13	12	12	16	14	13	93
280	14	12	16	14	14	13	10	93
Total	210	213	214	204	230	201	206	1478

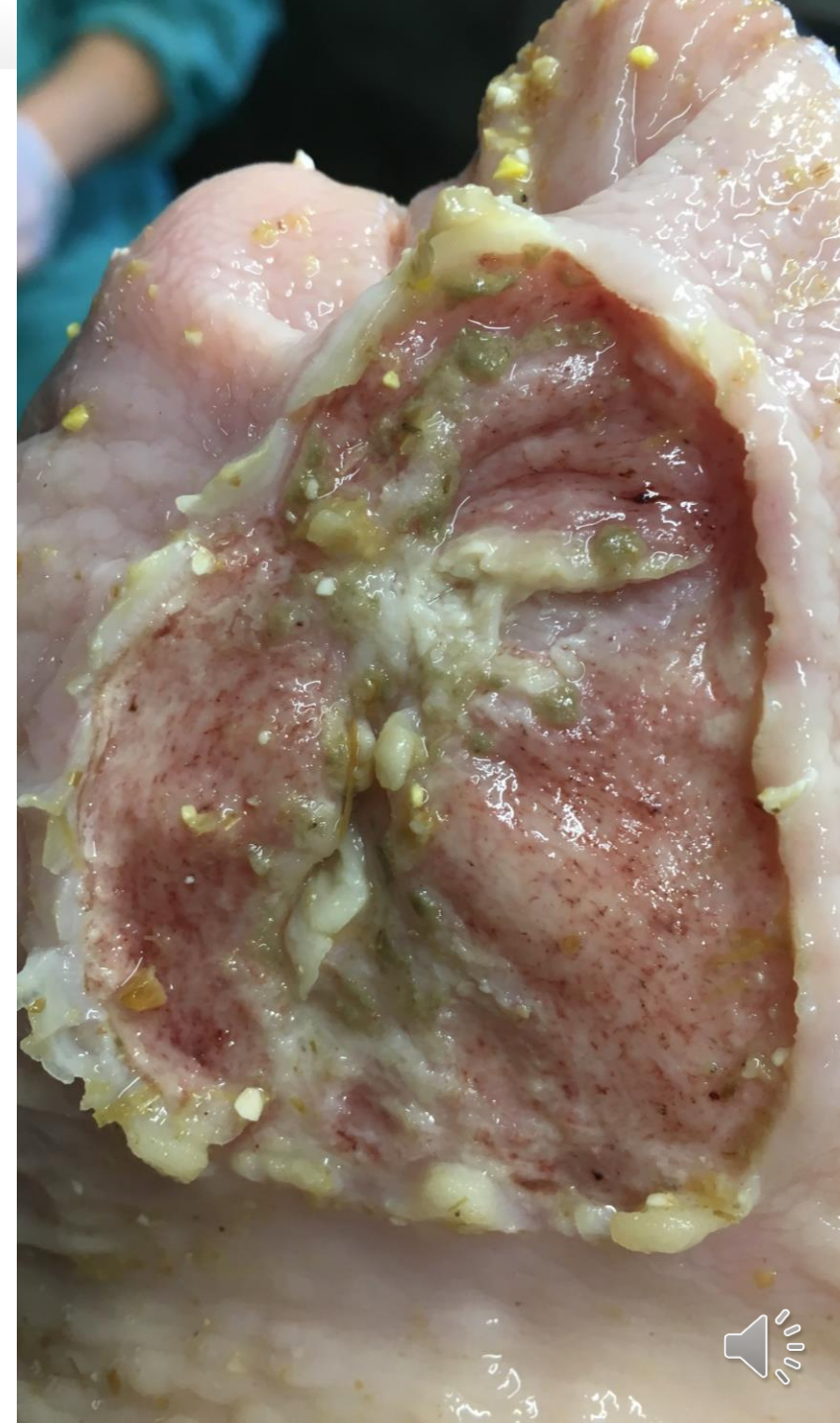


Pig 207: Problem with feeder on day 1 and 2 (Days not included in the model)



15 Gastric Ulcers (Score 8 - 10)

ID Pig	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Total Observations
26	5	8	9	8	9	10	9	58
33	6	11	17	12	16	16	13	91
56	5	6	5	6	5	6	8	41
69	10	10	15	14	13	18	11	91
75	12	12	12	14	9	15	16	90
100	9	14	10	4	20	16	13	86
104	9	8	12	9	7	8	8	61
128	15	11	11	11	6	6	7	67
153	18	22	20	25	20	21	25	151
161	13	13	13	12	23	14	9	97
222	12	20	13	16	27	18	17	123
255	13	13	14	20	14	12	13	99
268	5	5	4	5	8	4	5	36
270	4	3	13	5	7	14	15	61
290	15	11	12	15	15	13	12	93
Total	151	167	180	176	199	191	181	1245

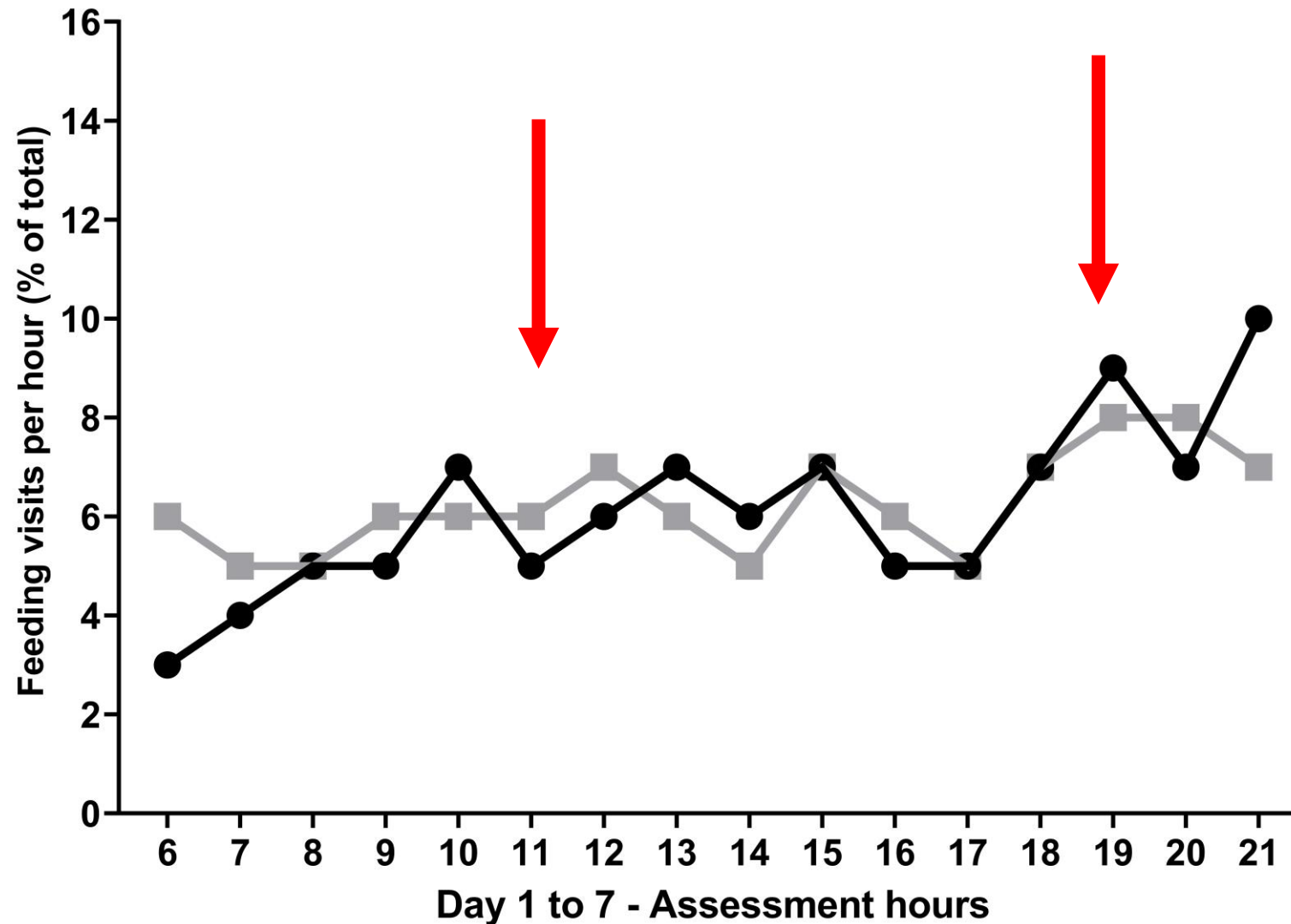


Generalized linear mixed model:

Parameter	Pig category		Sex		P-values for fixed effects	
	GU +	GU -	Female	Male	Pig category	Sex
Feeding time per visit (minutes / visit)	6,29	5,00	6,32	4,97	0,055	0,047
Total feeding time (minutes / day)	71,9	66,6	64,3	74,3	0,201	0,021
Number of feeding visits (visits / day)	12,2	14,5	11,7	14,9	0,044	0,006



Daily distribution of feeding visits



CONCLUSION

Nursery pigs with GU had a ***tendency to eat for a longer periods*** for each visit to the trough, but ***significantly fewer visits during the day*** compared to pigs with no GU.

No difference in total feeding ***time per day*** between pigs with and without GU

Strong association of feeding behavior with ***sex***



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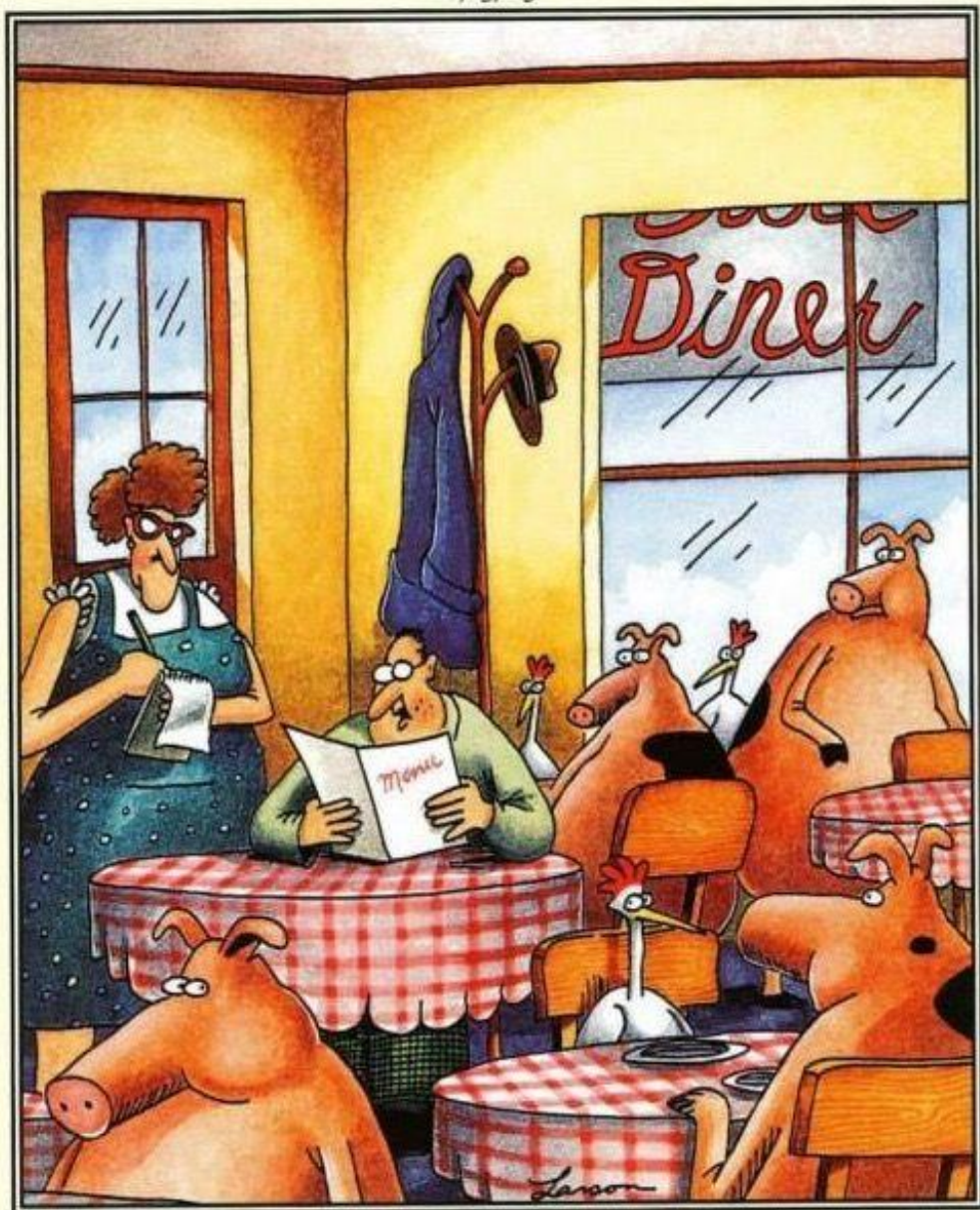
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UNIVERSITY OF
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8/13/85



Spørgsmål?

“Well, I guess I’ll have the ham and eggs.”